ADULT EDUCATION DEPARTMENT
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EDUCATION

LEARNING IN ORGANIZATIONS

Four Case Studies of Education in Industry:
A Model of Information Exchange

by

Dr. Alan M. Thomas, Project Director

et al

An Informal Publication of

The Department of Adult Education
Ontario Institute for Studies in Education
252 Bloor Street West, Toronto

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AN OVERVIEW *PART A*

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BELL CANADA (ONTARIO REGION) *PART B*

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PART A

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AN OVERVIEW

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The shift of emphasis in the education of adults in recent years from a prime focus on teaching to at least an equal focus on learning has allowed, indeed provided, some new fruitful speculation on how any society manages the potential for learning, for changing in fundamental ways, among all its citizens. The now historic UNESCO Report, Learning to Be (UNESCO-OISE 1973) served as a turning point in the historical preoccupation of western societies with the learning potential of the young. Although at that time, there were considerable resources already at the disposal of adult learning, the Report served as a climax to the largest, and perhaps the last of, exclusive attention to the education of the young.

Perhaps no single idea has captured most of the world as pervasively and as rapidly as the idea that emerged at the end of World War II - that investment in the education of the young was the sure path to successful and orderly economic development. Whispered into the ears of the world's Treasury Boards by the economic community, this idea resulted in the unparalled investment, in the education of the young, by almost all of the countries of the world. Coincidentally, at least in the western societies, that investment was accompanied by a huge increase in the numbers of young, and the conjunction of these two factors temporarily obscured other educational activities, from popular view and, to a certain extent, from official view as well.

In the early 1970's the UNESCO summarized and reviewed the results of that concentrated investment as they had materialized in most of the countries involved. These results, some of which had been reflected on the front pages of the world press for a decade or more, were not encouraging.

What had happened was that while the systems had been undeniably successful in including enormous proportions of the world's children in for relatively lengthy periods of time, the articulation with the economic, political and social systems had not occurred.

Factors which should have supported the transition from school to work and to responsible adulthood had simply not operated as expected. Above all, at least in the more vociferous western societies, the adult world was showing considerable discomfort at accepting not only the numbers, but also the attitudes of these hordes of "well-schooled" young. Since that period, the legacy of youth unemployment, checked aspirations, and other imbalances between employment, and the availability of appropriate skills have been plain for anyone to see.

The arguments of the UNESCO Report were thoroughly misunderstood; the lessons perhaps still remain to be learned. The Report did not conclude, as many readers did, that mass education was a bad thing for orderly social development. What it did conclude was that the exclusive concentration on the young had been an error, and that the imbalances in resource and opportunity which followed were understandable and to a degree predictable. The Report argued not only for a particular kind of education to suit the end of the century, but also for a reallocation of resources from the young to the entire population. In other words, it is not possible to alter a society effectively through the concentration of educational resources on the young.

Since that time resources have been reallocated, though both the process and results of such reallocation are considerably less visible to the public at large, and even to the professional education community than was the case when handsome, even luxurious, new school buildings proliferated in every neighbourhood, and throughout the countryside. The fact that many of the young who dominated the educational concerns of the fifties and sixties are now adults, plus the arguments of reformed economists have contributed to these reallocations.

This study is devoted to a detailed description of four examples of what we described as "other educational activities" in their specific environments. That is, the environment or organizations whose primary purpose is not education.

It is important to locate these examples within the voluminous and growing literature associated with education and training in industry and in all other non-educational organizations. Although there are libraries of such publications. we have been able to discover few, if any, which deal in either depth or detail, with individual programs within specific organizations. Either the books deal with the theory of such education and training often in highly specialized ways (for example, a great deal of the literature is exclusively devoted to various theories of the training of management personnel, and offers only scattered examples drawn from a variety of usually anonymous settings); or they deal with the application of certain kinds of technologies of instruction to these settings, (for example, the growing use of various kinds of programmed instruction, or "self-paced" learning. There is a serious lack of detailed observation of whole programs within specific organizations, and this is particularly true with respect to such programs in Canada. We know of no other case material of this kind.

It is possible that the literature of industrial training in its dominant form serves the primary needs of the individuals and groups working in the field. The highly individualized nature of the program to be found in each organization; the very large number of organizations providing programs, some of which are hardly known about outside a particular organization; and the rapidity of change in these programs within the organizations suggests some futility in trying trying to record specific programs in detail at specific points in time. In fact our investigations were scarcely complete before some element or elements of the program under examination had changed.

It may be simply that it is the biases of a group of people more used to the dynamics and dimensions of public systems that required the descriptive unitary approach represented by these studies. However, if the two predominant systems: the public formal system and the private formal/informal system are to learn anything from each other, or are to become more interpenetrable for individuals in the society who experience both of them, then some common forms of exchange and understanding must be sought. By undertaking this method of examination the authors hoped to increase information and understanding in both directions, both for theorists and practitioners.

The foregoing argument suggests at least two audiences for these studies, one of them broken into two sub-groups. It is important for those engaged in the public educational sector to have some idea of the nature and extent of the educational activities to be found in the private adult sector, as diverse, complicated, and often invisible as they are. This argument, addressed to personnel in the community colleges, where there is a close relationship between programs and industrial and government practice, seems self evident. Presumably in such exchange programs as the Ontario Government's program, Training in Business and Industry, there is a substantial degree of continuous interchange of information and experience between the two sectors. However, the need extends beyond that, and in our opinion, embraces all those individuals who are engaged in policy decisions about either system, and indeed anyone who may have some significant influence on individuals passing through those systems, which of course means every teacher. It is a considerable disservice indeed to the student in the public system, to leave the impression that that system is the only educational system in the society, or that to complete programs within that system means to have completed all or most of the educational demands the society will make throughout the life of the individual. It is an equal disservice for practitioners in the various private systems to misinform, or to fail to inform, individuals who may have learned only a little about the public system in their youth, but who, with adulthood have gained the knowledge and skills and ambitions necessary to reenter it, but who do not know how or where.

The authors believe that the latter case occurs rather less often than the first, largely because the practitioners in the private systems are without exeption relatively well experienced with the public system, while a very large number of people in the public system have still to appreciate or understand the nature and extent of the private system.

The authors also believe that there are four important objectives to be realized by increasing this understanding. Not necessarily in order of importance they are the following:

-- It is now generally accepted that no modern society can survive by depending principally on the formal education of the young. The continuing education of adults has become at least an equally pressing concern of public policy. It is also clear that the volume and specialization of such adult education can not be undertaken solely by means of financial and administrative practices that have evolved around the education of the young. Some mixture of public and private financial and administrative practices is the only means by which these demands can be met, at least within the general dynamics of these societies. Even in predominantly socialist societies, the same needs for evolving administrative and financial patterns manifest themselves. What seems to be happening is the development of almost parallel systems with little exchange between them. These circumstances cannot prevail unless we maximize the values of each of the systems. The traditional concern for moving from school to employment, usually focused on the adolescents in our societies, is now extending throughout all of adult life, as more and more individuals combine employment with various kinds of education and training, both concurrently and consecutively.

-- With respect to those individuals who engage in learning and work over extended periods of their lives, the ease with which they are able to relate themselves to public and private systems, to move from one to the other, or as Waniewicz reports (see below); engage in both at the same time, must be enhanced. For reasons already stated, information about these systems is difficult for ordinary people to get, and for the most part the major institutions involved are not very helpful or very competent at handling such information. One of the reasons is that simple descriptive material does not always exist. What is available is not always intelligible to even the people in the systems, and is much less so to those outside the system.

-- A more esoteric objective, perhaps, is that the history of education in the second half of this century in Canada cannot be written without a thorough knowledge of both public and private systems. Yet our impression is that the traditional sources of educational history, the centers of academic training and research, are not well informed of these new and somewhat volatile programs in the private sector. The very volatility of

(Demand for Part-time Learning in Ontario, OISE/OECA, 1976) of these private programs makes them somewhat non-historical in nature with little evidence of serious interest in recording their development or maintaining adequate records. Yule (Management of Learning in Work Settings, Unpublished Dissertation, OISE, Toronto, 1979) points out that a great deal of the work of managers of training and development in non-educational organizations is oral, and few records of events and the planning of events emerge.

-- Studies of this kind help us to learn something about learning itself, So much of what we think we know about learning as a social factor is derived from the planning and organizing of the learning of the young. Only by examining the management of learning in quite different contexts will we be able to understand the biases, conscious and unconscious, that we have acquired from this exclusive focus on young and dependent learners. If any part of the public educational system is troublesome and difficult, it is the senior secondary school years, precisely the period when the population involved is shifting from dependence to independence. We need therefore to know much more about the manifestations of learning and commensurate attempts to educate and train in other sectors than that to which we are most accustomed. While the intention of these studies is not to be "comparative" in any formal sense of the word, it was impossible to escape the application of concepts and ideas generated by experience in public education of various sorts to the examples under investigation. What biases remain unexposed to the authors will at least be visible to the reader.

The authors did not include evaluation of the programs under investigation. We do not know whether they meet their stated aims or not, and while temptation was continuous to engage in such evaluation, it was ruled out as beyond the aims of this particular study. Our comments on evaluation as operational parts of the programs examined indicate that even within the dimension of single programs or single organizations the issues involved are complex and a source of continuous preoccupation on the part of those who manage the programs. However, there is a broader aspect of evaluation in which we have made some assumptions which will have to remain assumptions, though there is some advantage in stating them.

We have assumed that Canadian society and the organizations represented in this study know what they are doing in investing in education and training on a very large scale. We have assumed that such programs are of value, without specifying any particular program under any particular auspice. We are also assuming that literally millions of individuals who take part in these programs derive some overall benefit from them, that they contribute to a more satisfactory employment, to greater personal ability and esteem, and to some important growth on the part of those individuals. (This is, of course, not to say that for some, on some occasions, participation is a waste of time, both for the individual and the organization, and may in fact be destructive.)

With these assumptions in mind, we then have a particular preoccupation with the meaning of such programs in Canada. If such programs are important in maintaining modern industry and government, if they do contribute to the self-concepts and more important to the identities of many of the individuals involved, then their significance in contributing to both the competence and the identity of adults exercising thousands of dimensions of responsibility within a society said to be 'Canadian' is without question. It is of the greatest importance that Canadians receive their training and education in a Canadian context. To continue sending a large number of middle and senior technicians and managers to the United States for example for significant training, will in our opinion contribute to the final extinction of Canadian society. For this reason we believe that an understanding of the nature and demands of such private programs, of the need to have them, and the need to strengthen them efficiently is very important to all of us. Partly for this reason we were interested in the decision of Bell Canada to terminate its "resource and training" contract with American Telephone and Telegraph some years ago, and to strengthen its resources for providing such service from within its organization and from within Canada. We were equally interested, in our study of Marks and Spencer, a new "branch" company in Canada, to observe the areas and events around which both indigenous training and the need for it has begun to emerge. While we investigated the American training facilities used by Wardair, we were aware of the degree to which training is essentially "national", and the degree to which scheduled airlines in Canada have developed domestic training systems. We believe that our study has indicated or at least identified some of the critical areas in which the decision to train domestically or to go abroad manifests itself, and some of the dimensions of those decisions. We should observe that none of those decisions is ever permanent, and that the evolution of technologies, and the increasing presence of training resources of American and other origins means that decisions have to be made again and again. If Canadians are to survive as a society, particularly in an era of high technology and great varieties in size of organizations, such decisions must by recognized and evaluated for the crucial decisions they are.

It might be noted that we have made one other assumption which is of some importance in this context but which also pervades the entire study. Fundamentally we make no distinction between education and training with respect to the significance of the activities being described. Despite the prevalence of that distinction in Canadian education, we do not believe that it is possible to educate without training, or to train without educating.

Specific, technically-based, behavioural objectives, for example, welding cr pipe-fitting, or even driving a complex vehicle, cannot in our opinion be developed without at the same time creating or shaping attitudes to the nature of the context in which those skills will be employed, or to the nature of the self of the person employing them. A cogent example is related to the personal responsibility exhibited by the last mechanic turning the last bolt on the aircraft, or the inspector who must assure that the work as been done effectively. Comparably, ideas, attitudes, and concepts cannot be effectively conveyed without attention to the development of some technical skills of expression and analysis. A brief glance at any graduate school in the humanities or social sciences will indicate the amount of attention paid to the development of purely technical skills.

While acknowledging different goals and the programs designed to meet them, the authors have not distinguished between the values involved, believing that learning anything is of some importance to this society, indeed to any society, and that the context in which that learning takes place, which encourages, sustains and eventually evaluates that learning is worth the attempt to understand it.

Design of the Study

The nature of the world in which these educational activities take place has already been described. It is a world made up of thousands of groups about which there is little if any indication to the public regarding their educational activities. Since some of the individuals engaged in such educational activities within these groups form their own associations (such as the Ontario Society for Training and Development), there are some clues to the existence and location of programs. However, since we know that not everyone associates themselves in that way, (indeed some can be found in other organizations such a personnel associations, depending in part on how their programs are organized within their respective companies), we cannot be sure of any adequate source of information about their educational programs. As we have already pointed out, most of the research about the extent of such programs across companies and in other organizations is reported in aggregate groups, usually related to size and purpose, and therefore is of little help in locating actual programs.

A reflection of that method of reporting is that individual organizations are somewhat reticent about their programs, and therefore resist any external attempt to study them in depth. The search for cooperative organizations therefore was lengthy, unpredictable, and involved a number of invitations before one was found. In many cases, the discovery depended upon chance encounters, or upon knowledgeable friends. Even the cooperative companies needed some confidence in the intent and relative competence of the investigators before they were willing to expose themselves or devote the amount of necessary time of their employees. Some welcomed the invitation, and in every case where an agreement was reached, there was a high degree of cooperation from all the employees involved. Despite the time involved, for both individuals and organizations it was for some the first opportunity to be self-conscious and to a degree analytical about what they were engaged in.

In each case, at the instigation of the investigators, a formal agreement was reached that demanded the approval of both parties before the material could be published. For the investigators the agreement seemed a reasonable statement of the proposed activities and the best means to avoid future misunderstandings. As we were aware the our overall goal of cooperation between systems was not likely to be enhanced if the means of developing adequate information resulted in acrimony and misunderstanding.

The second stage was to meet with the senior official(s), and in some organizations there are several depending upon the degree of centralization of the education and training. At these meetings we tried to identify all of the educational activities taking place in the organizations. At this stage we made our first attempt at drawing charts with individuals whom we wished to interview on them. Since titles and descriptions vary from organization to organization, the mere task of finding people proved formidable. Even after the chart was drawn up, the investigators found groups and individuals not included in the initial outline because they were not considered to be part of the educational apparatus, but whom, in the eyes of the investigators, were carrying out educational tasks of great importance. Despite these chance discoveries, we were left with the uncomfortable sense that a little longer in the organization might have turned up whole other activities that had been quite unconsciously excluded.

Contact with the individual managers required that the central administration inform them of what it was we were about, and why. External investigators in any organization often generate suspicion about their true purpose, or the true purpose of the particular area of senior management that has introduced them. These suspicions are normal and unavoidable, though we believe that the information we derived was little affected by such suspicions. In fact, we found that individual managers were glad to talk about what they were doing, and we gained the slight impression that they welcomed the extra attention. This, too, reflects on the particular roles played by education and training in these organizations, and the perceptions of those who manage such programs have of the view of their activities held by senior administrators in the organization. This is an interesting contrast to working with individuals in educational organizations who believe that they, in some way or another, represent the central purpose of the organization.

Interviews were carried out over periods of six months, or so, for each organization. At the completion of each level of interviewing, discussions were held among the interviewers to serve as corrections for areas unexplored, and in order to see if some patterns were emerging. The entire series was undertaken in sequence: Bell Canada, CBC, Marks and Spencer, and finally Wardair. The investigators worked in different teams, for each subject, and tried to avoid allowing the tentative patterns that emerged in each study to dominate the subsequent study. The degree of success in doing this is hard to judge, except to observe the quite different pattern that seems to have emerged in the CBC in comparison with Bell Canada.

Final versions of each case were further subject to discussion and analysis, and some re-interviewing was undertaken to correct ambiguities or to explore areas left implicit in previous interviews.

Finally, the research team evolved a set of categories of decision making which allows a more general and tentatively theoretical approach to so diverse and diffuse a set of activities. It is our belief that the categories have sufficient generality to allow their application to any organization with an educational program of any kind in order to gain a quick and efficient grasp of the nature of that program. Given the highly transitory nature of these programs, this can be of considerable advantage.

One set of categories arises from necessary activities related to any attempt to educate or train any group of people. The second group of categories is that drawn from our observations of the operation of the enterprises themselves and in each case all the organizations examined seemed to encounter the same situations. Since anyone can probably generate a similar and slightly different group of categories, the authors will not argue for their exclusive application. In the formulation concerning the management of the learning in any society we have simply chosen groups that seem to apply to the educational process, that are reasonably intelligible, and that can be transported across institutional boundaries. They are: 1. Diagnosis of

Learning Needs; 2. Instructional Strategies; 3. Facilities and Resources; 4. Recruitment of Students; 5. Evaluation; and 6. Development of Training Staff (Instructor and Course Designer Training). Obviously both the choice of these categories and the language used to describe them is biased by experience with formal education. Nevertheless, they have proved useful to the investigators so far in understanding what is taking place, and they seem to possess sufficiently general character to be useful in this context.

1. Diagnosis of Learning Needs

The primary issue facing any organization is that some of its problems of continued operation and success can be solved by deliberately involving employees in education and training. A constant need within such an organization is to distinguish problems or opportunities that can be met by providing training opportunities from those that must find other solutions. An alternative to training might be to move an individual to another job, or fire him/her and replace him/her with a person to be found on the open market who can do the job. Obviously in high technology companies like Bell and CBC, where individuals possessing the knowledge and skills required are extremely difficult to find, the reliance on training must be greater than in Marks and Spencer, where skills can be learned relatively quickly. Therefore, a high degree of skill in identifying training needs, distinguishing them from other needs, or in providing an atmosphere that encourages employees to identify their own training needs is to be found in all these organizations, but developed and applied in different ways. An example with ramifications for all professional training is Wardair, where the Government is deeply involved in determining training needs to serve social concerns. The particular significance of the relationships between the Government and the Company, related to training lies, in our opinion, in the likelihood of such relationships developing in many more companies and other organizations in the future. New regulations involving occupational health and safety, public safety such as with respect to nuclear installations, spills of oil and other public bodies in supervision and control of in-service training programs. There is a great deal to be learned from the way in which these relationships have worked at Wardair.

2. Instructional Strategies

Each organization must decide how it will meet the training needs that are continuously identified. Here one finds the widest scope of utilization of educational and training patterns, from the sharp separation between design and presentation staff in Bell Canada to the incorporation of training within the administrative duties of the Area Staff Manageress of Marks and Spencer. Here also is to be found utilization of a great variety of training methods, such as forms of "self-paced" instruction involving sophisticated self-revising audio-tape systems or highly complex simultation. The unique issue to be found in this category is the "make or buy" decision. The question that must always be decided is whether the resources for the training will be purchased from outside the organization, sometimes for the formal systems as in the case of TIBI or for some private source, or whether the organization itself will provide the materials and the instruction. A second though rarer issue in this context is the degree to which externally imposed standards must be met, overwhelmingly obvious in this case of several kinds of training in Wardair, and the degree to which these external standards determine methods of instruction as well as evaluation.

3. Facilities and Resources

The extent of such facilities as classrooms space, special equipment, such as simulation equipment common both to Wardair and Bell Canada depends in part on decisions taken under the previous category. Where the company is large, the technology complex and unique to its operations, it is likely that one will find considerable investment in facilities. In some cases, such as Wardair, resources are shared with or rented from other similar companies. In others such as Bell Canada a substantial range of instructional facilities are maintained from the residential complex at Belleville to the extensive "self-paced" facilities in Toronto. Sometimes these facilities are managed centrally, sometimes they are integrated into separate departments. Sometimes the needs are so general, as in the case of the need for classroom and conference facilities, that they are simply purchased as needed from commercial resources.

4. Recruitment of Students

Students must be found, identified, and scheduled for attendance at specific courses and programs within the ongoing demands of the organization. Obviously large organizations can accomodate the allocation of important human resources to training opportunities more easily than small ones. Yet there remains the need for careful and productive allocation of the right people to the right courses at the right time. In comparison with the somewhat wholesale methods of allocation in the public system, even in large organizations these decisions are both complex and subtle. They involve a range of individuals, such as immediate supervisors, planners, etc., and a range of factors such as the likelihood that the individual can succeed, the need for the particular training, the proper timing and the long range benefit.

5. Evaluation

As in other systems of education no subject is more constantly debated or more critically examined than precise evaluation of the programs involved. Nor is there any area in which more dissatisfaction is expressed. Very few of the formal measures of achievement, familiar in the formal sector, are to be found. The investigators encountered only a few examples of the application of formal examinations or tests. However, a very great deal of informal evaluation takes place constantly, communicated between the educational programmers, the immediate supervisors, and the individual trainees themselves. The final test is: can the individual exercise the desired skills in the operating conditions of the organization? Sometimes the evaluation is closely tied to other forms of appraisal, as is the case in Marks and Spencer; on other occasions there are outside examiners as in the case of the close relationship of the Department of Transport and Wardair. There is a sharp contrast with the public systems to be noted, not so much in the stages of evaluation applied as in the relative emphasis given to them.

The public system first of all evaluates the individual student and pronounces on his or her failure or success against general norms of achievement. How these pronouncements are applied in terms of promotion, etc. is another matter. If a large number of students fail, some question is likely to be raised about the calibre of the teaching, and some intervention may occur, though this is relatively rare. Finally, if sufficient numbers of students fail over a sufficiently long period of time, then there is likely to be some question about the adequacy or the value of the program and some revision will take place. We are not suggesting that this is the only basis or even the main basis for program revision in the public system, but that there appears to be this kind of relationship between it and the student success or failure. While the same three events can be seen in these private systems, the emphasis or the sequence is sharply different. If the desired outcome in terms of the development of new skills or knowledge is not apparent upon a return of the trainee to operations, then questions are asked about the value of the program, and there is likely to be immediate experimentation with revision. Often at the same time, questions are asked about the quality and the nature of the teaching. In short, the need for qualified manpower is the dominant element, and the program and teacher are more likely to be "failed" than the student. The investigators noticed a variety of relationships between teachers and program developers (sometimes they are the same people) but overall we encountered a very high frequency of self-evaluation of teachers in these programs and a continuing process of experimentation with program. In one case, that of Bell Canada, programs change their content more rapidly than their titles, and individuals frequently attend over a period of years courses with the same title but dramatically different content, Obviously this condition necessitates very good information systems between the educational center and the students and those who share in their recruitment,

6. Development of Training Staff

The positions, with respect to tenure, career advancement, skill development, and general security of training staff vary enormously from organization to organization and within organizations themselves. The relative newness of these programs means that even in older companies like Bell Canada, many of the individuals in the training programs are the first people to hold those jobs. Circumstances are also affected by the presence of external examiners such as the Ministry of Transport. By and large teachers have been drawn from the line staff of the organizations and many expect to return there after a brief term of teaching and/or program development. Increasingly there are signs of the development of more highly specialized educational personnel who may spend their lives on that activity within the organization.

The second set of categories of decision making involves circumstances occurring in these organizations to which the bulk of training is related. The five categories in this case are: 1. Entry Training; 2. Recurrent Training; 3. Preparation for Promotion; 4. Company-wide or Technological Change; and 5. Special Problems. Obviously the final term - special problems - could allow such deviance among the organizations as to render the generalizations meaningless, but we have tried to restrict inclusions under that term to include only individual and small group variations within an organization, that for the most part are examples of single occurrences so far as the individuals involved are concerned.

1. Entry Training

All organizations, large and small, appear to provide some orientation for new employees to their particular ways of carrying out their tasks. Sometimes the orientation is provided prior to actual employment, sometimes at the time of first appearance, sometimes after first acquaintance with the job. Sometimes all three events occur. Obviously in large organizations with long accumulated procedures, and complex structures, the orientation wil require a longer time than in smaller and newer ones.

2. Recurrent Training

Most organizations appear to have provision for recurrent offering related to technological change or the need to reduce the effect of extreme specialization among company personnel. Obviously high technology companies will demonstrate elements of both demands in their training programs. An example of such programs is the need for regular retraining and updating of air crews at Wardair.

3. Preparation for Promotion

Almost all promotion is accompanied by training of some kind. Obviously the old pattern of learning the new job while fulfilling the previous one no longer applies. Many organizations are highly specialized and promotions often involve horizontal as well as vertical movement in the organization. The chance to learn the new job may be non-existent except by means of special training. What is variable is whether the training will occur before promotion or afterwards. Many organizations in the sixties learned the dangers of "crown-princing" and the impressions of the investigators for the most part is that training is either given generally to a whole group, members of which then wait for vacancies to occur, or is provided after the promotion has been made.

4. Company-wide or Technological Change

Technological change involves nearly all organizations in alterations of their activities that are on such a scale as to involve very large portions of the organization. Such an example could be found in the move in Bell Canada to "digital switchers" or the acquiring of a new type of aircraft by Wardair. A smaller but interesting example is the arrival of annual new styles at Marks and Spencer. In each case, installers, operators, and sales personnel are all involved in the changes which must by planned and prepared for several years or months ahead of time. Often these are the most exciting kinds of events for the educational personnel since they are engaged in developing entirely novel training programs which have never been attempted before.

5. Special Problems

All companies find themselves faced with individuals who for various reasons cannot cope with their jobs. Sometimes special training opportunities will alleviate the problems, sometimes the remedy must be sought elsewhere. In most cases, however, we did find attempts to provide special training for such individuals within the immediate limits of the organizations' resources.

On another level, special problems are identified by line staff who request training for unique problems. An example is the request for "coronary pulmonary resuscitation" training by flight attendants in Wardair, and requests for courses in time management, report writing etc. by Bell Canada.

A final major contrast with the formal educational system is that in all the cases studied, time is a dependent variable. The overriding dynamic of these systems, the demand for special competence in specific situations means that the training lasts as long, within unspecified limits, as is necessary to learn the required content. While a great deal of instruction is provided in groups, the basic unit of the formal system, the need for improved individual performance insists that the emphasis be on individual performance in learning. Hence the impressive investment in variations of self-paced instruction (Bell Canada); the small ratio of instructors to sessions (Wardair); and the close relationship between individual appraisals of job performance and success in planned training (Marks and Spencer, CBC). What is virtually absent is the fixed session or annual time periods that have so dominated the formal system and by which all subject matter and learning is derived.

However, at present there is an unexpected conjunction of an emphasis on individual learning and self-determination in both systems. In the formal system the movement has arisen from theories about effective learning and the inclusion of new groups of students, most of them adults. In the private, informal system, it has arisen from the nature of the enterprise. It may be that the latter, as its experience grows, will introduce more rigid expectations about the length of time it should take to "learn" something based on averages acquired over long periods of teaching. This has occurred already in areas of operative teaching such as company familiarization, where change is not radical. It is impossible to say how widespread the utilization of self-directed learning will be in the formal system, though one expects it has already passed its peak in this cycle. What is important is that there is now a certain commonality of experience of both learner and teacher in the two systems, and more chance of use or transfer between them, including the transfer of experience.

Having examined the contrasts and similarities between the two systems, it is important to explore, to the extent possible, the size and scope of the private, informal system. How large is the milieu from which these case studies are drawn?

There is a good deal of evidence of the existence of such programs as early as 1930. Indeed the parent company of one of the cases, Marks and Spencer, reports the appointment of a Director of Training as early as the 1920's. The most important recognition of such development is to be found in the work of Harold Clark of Columbia University, a series of small books beginning with Classrooms in Factories, and continuing through Classrooms in Stores, Classrooms on Main Street, Classrooms in Camps. Clark concludes Classrooms in Factories by saying "two great educational innovations of an institutional nature have shaped the civilization in which we live. The first had its beginning back in the latter part of the thirteenth century when groups of teachers or scholars, or both, banded together in the form of medieval guilds to secure mutual protection and unmolested seclusion in in the pursuit of knowledge. Thus were inaugurated the first permanent organizations for the transmission of learning. The second was the establishment of the American free-public-school system, accomplished in principle at least by the close of the second quarter of the nineteenth century. From the first has evolved the modern university; from the second, the conception of universal education supported by the people free from both the taint of charity and the influence of selfish interests. It is possible that we are now witnessing, in the educational activities of American industry, the birth of a third great educational force of far-reaching consequences. For just as the first has perpetuated learning, and the second has provided the bulwarks of democracy and a free economy, so this third innovation is adopting civilization to a new technological era, the ultimate consequences of which stagger the imagination." (p. 134-35, Classroom in Factories).

We can scarcely be said to have reached the ultimate consequences of the new technological era of which Clark speaks, but in the perspective of twenty years or more since he wrote, we can see that he was at least descriptively correct. There is a new educational force, and it deserves to be treated with the seriousness he proposes, whether or not we come to the same hopeful conclusions about it. What is of the greatest importance about Clark's contribution is that he saw that the programs he explored could no longer be considered temporary or unique responses to special and short term problems but that they had become relatively permanent and considerable aspects of education in the United States. The essential argument of this presentation proceeds from that conclusion.

Clark added one more aspect to the argument presented in his first book. He begins by saying "Factories today have classrooms, organized programs of studies, faculties, textbooks, and examinations, and even graduation exercises with diplomas. Educational budgets often rival those of good-sized colleges, and expenditures per student are not infrequently two and a half or three times the national average for conventional institutions".

When he came to examine the educational programs of the American Armed Forces, he repeated his descriptions of the size of expenditure and scope of programs and resources with increased fervor.

The point is that as well as rivalling the formal systems in size and scope, these private systems often far exceed them in resources and quality of program. There is, one suspects, as much variety in that respect in the private system as in the public one but it is important to realize that the private adult system is not a haphazard, gerry-built, marginally-competent undertaking, to be found in unsuitable settings and limited accommodations. Perhaps it is necessary to keep that fact in mind while examining the detailed descriptions to follow.

Accurate information regarding the growth, extent, and precise location of these programs is characteristically difficult to obtain, particularly if such information is compared with the availability of information regarding the formal educational system. While even in this case methods of collecting information regarding adult participation in formal programs offers considerable difficulty, partly because formal institutions use contrasting methods of recording such participation; nevertheless, at least the institutions are relatively easy to find and identify. With respect to the programs in question, not only is there considerable variation in the number of individuals participating in programs, there is an infinite variety of programs being offered, and finally, it is always difficult to know which organizations are carrying out programs and to what extent. Different organizations have been and are involved in programs to varying degrees, at different times. Clark, for example, once reported that he and his colleagues had found so many organizations engaged in such programs in the mid-fifties, that they had tried to find some or at least one that wasn't. Having decided on the Yonkers Yacht Club as one of the least likely they were astonished to find literally hundered of individuals engaged in sailing instruction of various kinds, and several winter courses in navigation being offered by a retired Admiral of the American Navy, using a final year Annapolis textbook as the basis for instruction.

From the perspective of the 1980's this does not seem very surprising, but the example simply indicates a continuing difficulty in developing and maintaining accurate information regarding the extent of participation either by organizations in offering programs or by individuals taking part in them. In some cases, organizations, particularly large industrial or commercial organizations, are somewhat reticent about providing such information to any outsider. Understandably some regard their training and development programs as matters of competitive advantage and are reluctant to provide details that might fall into the hands of a competitor. The most difficult information to obtain is that regarding costs. In this case, the investigator frequently strikes one of three attitudes.

The first is reflected by the statement that the organization does not know how much is being spent on training and would rather not know. As some of our case material will indicate, that response is not surprising given the way in which training often develops within organizations, and the mixed regard for it frequently held by management. Training problems most often present themselves at the face of operations, and in the early stages at least are settled at that point in the organization, often quickly, in the hope that they are temporary in nature.

Even more frequently the costs are hidden under other budget headings, sometimes because there is no existing budget item to cover them. Even after an organization has developed an extensive and increasingly centralized training unit, the need for quick training escapes the control and direction of such a unit and is dealt with quietly and invisibly at the workface. The process involved in such developments is clearly illustrated in the Bell Canada case. Also in that case there is a reference to the relative vulnerability to budget cuts of training programs. For many contemporary managers training remains a luxury, or at least an expensive add-on to the company operations, and therefore the most visible and attractive target in the case of austerity.

Training programs tend to be labour-intensive, though there are interesting examples in all the cases of movement to self-paced automated training systems. It has always been a difficult task to demonstrate gains resulting from training programs within the competitive struggles for budgets in both public and private organizations of the kind under investigation. Only the more sophisticated organizations, usually those dealing in high technologies realize that, even with respect to some management skills, that they cannot go to the open market and find the employees who can function in the organization without some form of specialized training unique to the organization. Therefore, the statement reflects an attitude that it is preferable not to know the exact cost of training, since if it were known, senior management would probably move to reduce it. Implicit in that attitude is the apprehension that whatever the cost, it is probably high, and further that any amount is likely to be regarded as too high by the same senior management. In general, such responses have become fewer recently as more and more organizations have begun to accept the fact that they cannot survive without at least a minimum of indigenous training. Our cases have indicated to us what the minimum is likely to be.

The second attitude is reflected by the statement that the organization does not know the cost of the training, but if the investigators find out what it is, they will be grateful to know the result. In this case, what is reflected is the general distribution of training throughout an organization having emerged as a result of specific problems at the various work places. Also implicit here is that the general awareness of the importance of training for the entire organization has not reached a point where it has been centralized even for budgeting purposes. Finally, what is reflected is a rather greater security about the perception of senior management of the importance of training to the organization. There is some confidence that even when the costs are known the results will not necessarily lead to a reduction in the amount of training provided.

Sometimes this stage can be found immediately prior to the move to centralize training into one administrative unit in the organization. Again the Bell Canada case is a clear and provocative example of that process, as to a slightly lesser degree is the CBC. However, Wardair provides a case in which the demands of the organization's operations suggest that centralization is highly unlikely under any circumstances. Indeed, the material gathered, as part of that study, from American Airlines Learning Center suggests something of a reverse process in action. That is, the increasing decentralization of training units because of specialization and the sharp diversity of knowledge and skills being provided. While there may be in these cases some overall budget centralization, there appears to be no advantage to be gained by any other form of centralization. In some respects, then, the attitude reflected in this case suggests a wish rather then a powerful need on the part of one section of training in one organization to have a larger perspective on the activities in which he or she may be engaged.

The final response is reflected in such a statement as: "We know as clearly, as accurately as we can, what our training costs are, and we have no intention of sharing them with you or any other outsider." This plainly reflects the position of the organizations referred to earlier who regard their training programs as matters of competitive advantage and who are reluctant to allow information regarding their expenditures in that area to fall into the hands of a competitor. Presumably such organizations will answer such questions in large impersonal surveys where their identity will be concealed. There are examples of such surveys to be found from Statistics Canada (1963, 1965 & 1970), and from such organizations as the American Management Association (The Education in Industry Report). The difficulties of such studies from the point of view of this investigation are that they prevent close understanding of how the particular program works within the living context of a particular organization.

The very nature of such programs makes information regarding any aspect of their operations difficult to acquire. For example, a report from the Secretariat for Nordic Cultural Cooperation (Adult Education in Nordic Countries, Denmark 1976, p. 43) states, "It is extremely difficult at the moment to get a complete survey of the content, methods, extent of these in-service training schemes but they should nevertheless be included in any long terms status survey of adult education not only because this sector is experiencing rapid development, but because the increase in activities will lead to greater areas of contact and cooperation between industry's in-service training and other forms of adult education. The expenditure on in-service training is assessed at about 400 million kroner per year of which only about 70 million kroner comes from public funds. In-service training is thus the biggest item in the adult education budget".

While we have assessed costs in each of the cases provided, we have no idea of the overall expenditures of such programs in Canada at the present time. We doubt if anyone knows that amount. In 1965, Johnstone and Rivera (Volunteers for Learning, Chicago: Alden Publishing Company, 1965, page 61) reported that of all programs for adults being offered in the United States (in 1963), approximately 23% were offered by Business and Industry, the Armed Services and Government. These three sponsors accounted for participation of 3,390,000 different individuals in these programs. These figures do not include students participating in programs offered by other sponsors, but who were being supported by their employers. The existence of widespread programs of tuition support during that period among employers would suggest that a considerable number of individuals were represented under the formal offering - 40% were engaged in employer-sponsored programs.

In 1976, Waniewicz (Demand for Part-time Learning in Ontario, OECA-OISE, 1976) reported that 1,383,000 adults in Ontario were participating in some form of part-time learning. (p.ii) and of these nearly 40% reported that they were engaged in study either at their work place or in study that was being sponsored by their employer. This would lead us to believe that nearly a quarter of the adult population in Ontario at that time was engaged in a learning program related to their employment.

Various reports from Statistics Canada also reflect the difficulty in gathering and maintaining such information. Surveys were carried out in 1963 (DBS Organized In-Service Training in Four Major Industries, Ottawa: Queens Printer, 1965) and in 1965 (DBS Organized In-Service Training in Four Major Industries, Ottawa: Queens Printer, 1967) and in 1970 a further survey was undertaken for the then Department of Manpower and Immigration (A survey of Training in Industry, Training and Research Analysis Branch, Program Development Service, Department of Manpower and Immigration, 1971, unpublished).

In 1963, 2,001 organizations operating in the field of manufacturing, mining, public utilities and transportation reported having training programs. In 1965, 3,164 organizations reporting having such programs representing a total of 213,435 individuals engaged in some form of sponsored training. The 1965 study also reported that about 1,264 individuals were employed full-time in providing training programs in such organizations, and about 4,407 employed part-time. Unfortunately, the design of the 1970 study was not consistent with the two previous, and there is no ground for establishing trend data.

In the 1970 study approximately 9,541 industrial establishments with twenty or more employees reported training programs involving some 486,741 individuals. The most recent study was carried out for the Commission of Enquiry on Educational Leave and Productivity Education and Working Canadians, Labour Canada, 1979. A survey, on a small basis, of all establishments with more than 500 employees, with some smaller ones included, revealed that of the 44% replying, 27% (3,330) reported training plans for executive personnel, 25.5% (3,976) training plans for office workers, and 26.7% (3,219) training plans for non-office workers. While we can not establish trend information, there are some generalizations that can be drawn from these studies that are of some interest. Training appears far more frequently in large organizations than in small ones, and tends to be more widespread in the service industries than anywhere else. Since this sector has been the most rapidly growing of any in Canada since that time, we can assume that incidence of training has grown with it. By far the largest number of individuals participating in training are men, despite the greater numbers of women employed in the service industry, suggesting a clear example of discrimination against women in the labour force. In addition, it seems clear that those who participate in training under these auspices are those who already have advanced educational achievements. There is little point in looking to these educational programs for much redress of imbalance already present in the educational patterns of adult participation. Finally it is reported that by far the most frequently used vehicle of teaching within these programs is the classroom. Harold Clark's reference to classrooms fifteen years earlier should be regarded as more than metaphorically accurate.

Scanty as it is, the information gives us some picture of the steady growth of these programs. Our four case studies can be seen against a background of growth, extensive variety and decentralization. They can also be seen against a background of limited knowledge of such programs even by those who work in them, and of almost total ignorance about them on the part of other educational sectors of the society.

Finally it is important to try to develop some theoretical framework from which to understand the meaning of these case studies, the teaching/learning practices they display, the milieu in which they have developed, and the relationship between that milieu in and the society as a whole.

The capacity for learning in any human society is probably infinite. However, the resources available for stimulating and directing particular kinds of learning with identified goals are not. Every society must decide, in order to survive, what type of learning to actively prevent (for example, in contemporary Canada, learning associated with the non-medical use of certain drugs); what type of learning to permit; and what type to encourage, direct and compel. With respect to the latter the compulsory schooling of the young is the overriding example. Each of these categories represents a necessary decision on the part of society. It is with respect to the middle category, blending as it does continuously with the final category, that the greatest complexities arise and the least clarity exists. It is with this category, the practices and decisions related to it, that these case studies are concerned.

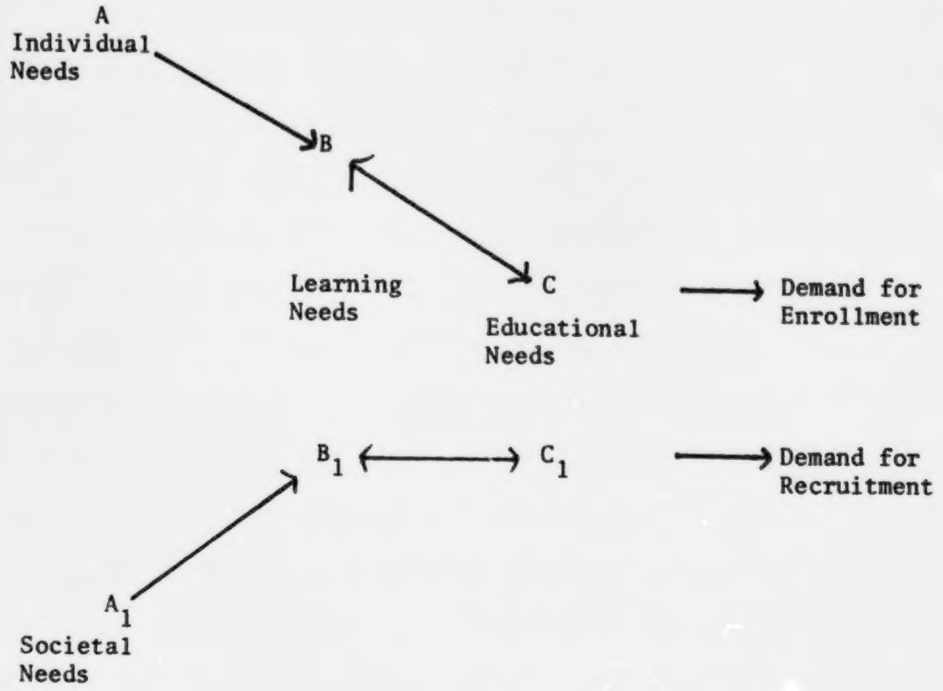
Societies change by virtue of the fact that adults in them discover new facts about the world, and learn not only about these facts but how to cope with them. Coping may involve reducing their negative consequences, such as dealing with the pollution of the environment, or exploiting their positive consequences, such as utilizing fibre optics for the transmission of information and thereby altering the entire structure, technical, economic and political, of the handling of communications in contemporary societies. Obviously, consequences vary in their effects on different groups and individuals so that even apparently positive consequences may have negative ones for others. However, since the end of the Medieval period in the West, change and "technical development" have generally been welcomed, indeed demanded, by western societies, and the evil consequence either ignored or mediated politically.

That the utilization of research, and the commitment to technical development and change involved, indeed necessitates adult learning has not been generally recognized until recently. In the history of Canada there have been two exceptions to that general blindness. The first exception occured within the area of immigration. It has always been clear to the citizens of a society based on substantial immigration, that there were serious problems for those adults who moved themselves and their families to entirely new cultural and physical environments. Not the least of these has been the problem associated with adults learning the new language of the host society, and in addition enough of its social and political conventions to survive. Thus, throughout Canadian history there has always been a limited official recognition of the needs to provide learning for those kinds of adults generally offered under the inclusive and politically safe aegis of training in "citizenship". It is safe to say that since the seventeenth century, somebody, somewhere in Canada, has been engaged in learning a new language, and commensurately, somebody has been engaged in teaching one. The second exeption was war. For perhaps understandable rhetorical reasons, arising from an unwillingness to see war as policy as distinct from a misfortune thrust upon us, we have tended to ignore the immense commitment, material and emotional, made to the potential for adult learning associated with transferring a large number of all kinds of civilians into a competent military force. In 1914, and again, on a much larger scale in 1939, millions of young adults were quickly and with relative efficiency, despite the folklore of civilian armies, taught social skills, attitudes and concepts with which they were until that moment largely unfamiliar. That they learned them sufficient to the ends sought, that is, the military defeat of the enemy, seems immediately evident.

Unfortunately, in the immediate aftermath of both of these exeptions, the contribution made to both awareness and skill with respect to the potential of adult learning seems to have been put out of mind. Nevertheless, since 1930 other developments had been taking place which have re-emphasized the importance of the learning potential of adults as adults. Up until the middle of this century, the usual response (the changes which occurred as a result of adult discovery and innovation) was to alter the curriculum of the formal education system in order. These changes became more apparent in the alteration and growth of technical education at the secondary school level since it was in those scientific and technical areas that most changes took place. It was generally supposed that the adults actually engaged in technical development who had learned or were learning those skills were sufficiently able to cope with the implications of those changes. It was further expected that as a new generation of children grew up, their coping skills would grow in concert with their acquisition of both skills and understanding during their school years. Whether it actually worked that way or not is open to question, but in terms of educational responses that seems to have been the reigning pattern. By the mid-thirties it was becoming apparent to some large enterprises, predominantly the oil companies, that they could not wait for that process to work itself out. If these organizations were to have employees with skills necessary to further the development and interests of their companies' respective enterprises, the companies themselves would have to consciously produce them themselves. Therefore, some of the earliest training and development programs known in North America began to appear in the oil companies and in other companies highly dependent upon developing technology. The movement has continued with increasing intensity ever since, until the present time when it is safe to argue that the education and training accomplished in non-educational agencies like corporations, government departments, hospitals and the like now represents the largest educational enterprise in the society.

The diagram on the following page is an attempt to understand how these developments take place in the context of the whole society. In its present form, the schema helps the authors understand something about the specific phenomena described and to think about them productively. We will try to explain how and why that is the case.

Diagram


A
Individual Needs
B
Learning Needs
C
Educational Needs
Demand for Enrollment
B_1
C_1
Demand for Recruitment
A_1
Societal Needs

At point A an individual has identified his/her unmet needs. Some of these needs can be met by relatively simple actions such as purchasing something or altering some circumstance in one's life if one has the power to do so. Some others can only be met if one changes oneself which in most cases means learning something. The individual identifies his/her needs as those that can only be met by learning something, and therefore moves to point B on the diagram. Experience tells us that under some circumstances all adults simply go out and learn what they need to learn - by reading about it, visiting a specialist or consulting a friend. That sort of adult learning goes on all the time, as individual adults identify their problems and set about solving them. Allen Tough (The Adults Learning Project, 1971) had identified many adults who engage in extensive learning projects, involving considerable periods of time and complicated programs.

Included in such programs may be the use of those public agencies which can be designated as "learning" agencies as distinct from teaching agencies, such as libraries, museums, art galeries and the like. It is important to not that it is at this stage that the individual adult identifies the need, formulates the goals to be met, plans and implements the means of meeting it, and perhaps most importantly decides for himself or herself whether the need has been met or not. When additional factors are present, for example the need for certification or access to highly specialized resources, the individual translates the learning need into what we have called an educational need identified as point C on the diagram. At this point, the individual had identified the need and the goal, but accepts the right and responsibility of the educational agency to define how the goal will be met or when the goal has been met or both. This decision results in a demand for enrollment in a formal, usually public institution as the individual seeks out a designated educational or teaching agency and enrolls himself/herself in a specific course.

As illustrated on the other branch of the diagram, societies can be said to be at point A having unmet needs. For example, in the mid-fifties it was argued that while Canada has plenty of access to capital investment, and plenty of raw materials, we did not have sufficient numbers of highly trained workers to take up the jobs that concentration of investment would have produces. The political and economic decision makers at that time, realized that such concentration would have done little to reduce unemployment or even maintain existing employment, a stated goal of the society. There had to be investment in the development of trained manpower. Therefore, the society designated a number of unmet needs as being learning needs, needs that could only be met by investing heavily in the development or training of individual citizens, a movement to point

B_1 on the diagram. The decision of the Federal Government during the sixties to launch substantial programs of manpower training represented a decision regarding a learning need, since the decision did not imply a particular way of meeting those learning needs. A number of new teaching technologies, such as in-service education, education on the job and the like might have emerged more predominantly than they did at the time. Such a direction would have involved a high degree of cooperation with private organizations and a high degree of coordination of the educational and non-educational sectors.

Other factors and events, however, promoted the decision to move quickly to point C_1, educational need, which involved the development of a large number of formal educational or teaching institutions reflected in the rapid growth of numbers of universities and colleges in Canada during that period. A commensurate result of this decision was to enhance the demand for recruitment of students to make use of the existing resources and acquire the necessary skills in order to find employment. Obviously there are other elements in such a decision, such as arguments over the sort of training that should be provided, and whether that training should be narrowly conceived and implemented technical training, or whether it should include a mixture of general education with specific training.

We believe that the diagram does provide a formulation for examining the management of learning in any society as it can help to identify essential steps or decision points involved, and that one can analyze relationships between one type of decision at one point, and the likely resulting decisions to be taken at other points.

The schema helps us separate out some of the educational sub-systems operating in Canada, and to examine the relationships between them. For example, if at point A_1 you consider the total under sixteen population then it is clear that A_1 society has decided that the main needs of that population are learning needs, that the only way to meet these needs is by defining them further as educational needs. The demand for recruitment followed by building formal schools and legislating the attendance of the under sixteen group in those schools.

With respect to adults, the sequence of decisions and the results are more complicated. For example, if you consider members of labour unions at point A, and the leadership of those unions at point A_1, then in the last two years, the leadership has decided that there are substantial unmet needs in the group that can only be met by defining them as learning needs. In cooperation with the Federal Government, the movement to point B_1 has been agreed upon, and financial support has been transferred to the labour movement in order to meet those needs as they are defined. Whether the learning needs will be translated into educational needs and met by means of formal responses remains to be seen, but clearly the initial decision was not to make that translation at the outset of the project. If the decision had been otherwise, as it has in the past on a smaller scale, then the finances would have been transferred to formal teaching institutions with instructions to develop formal and informal programs to meet those needs.

By applying the schema to education in the private enterprise, we can see some useful outlines of decisions and results. If individual companies are considered at A_1, then it is clear that increasing numbers of them have, more and more, defined societal needs as learning needs, and have set out to meet those by various responses. Only in a minority of cases, have the companies immediately defined the learning needs as educational needs, and simply sought out, or transferred financial resources to, educational institutions on a large scale.

To be sure, there exists a variety of complex interrelationships of educational institutions, governments and private industries and other non-educational agencies devoted to meeting learning needs with varying degrees of success. The report of the Organization for Economic Cooperation and Development of Manpower Training in Canada (1966-1967) observed that of all the industrial societies, Canada appeared to have decided to do more of its manpower training in public educational settings then in settings involving on-the-job training. The proportions cited were in the order of 80% in educational settings, and 20% in job settings. The O.E.C.D. recommendation was that that proportion be repressed to at least 50/50 and there have been indications that the Federal Government has been trying to respond.

Most of the programs observed by the O.E.C.D. examiners were programs of pre-employment or between-employment training, rather than training that takes place as part of employment. As the report addressed itself only to formal programs it did not take into account the massive increase in private enterprise decisions to engage directly in private systems of training. It is safe to say that most of the latter type of training follows the sequence of decisions we have outlined in the diagram, and only engage the formal educational system in a relatively limited way, for example, in the purchase or rental of specific training packages, expert resources in the form of consultation, or the agreement to finance either totally or partially the tuition fees of individual employees who wish to pursue specific educational programs.

If one considers governments at point A_1 and employers at point A, then it is clear that the main response of governments has been to acknowledge the right and responsibility of employers to identify learning needs, and to meet them as they see fit. In such cases, the government offers encouragement by allowing tax relief and/or directly subsidizing of training programs developed by the employers.

We do not intend in this context to go into the complex arguments associated with the merit and consequences of such decisions except to point out that the size and extent of such decisions mean that the educational and training programs that have arisen now occupy an impressive space in the educational firmament and we need to understand them very much better than we do.

The capacity for learning of all individuals, of all ages, in Canada is our most precious, and our most under-used and ill-used resource. However, the systematic nourishment, sometimes exploitation, of that resource has been developing extremely rapidly in the past three decades. Appearances to the contrary, the greatest proportion of that development has occurred in private hands, outside the authorized, public, visible, educational system. To understand our society, to understand learning, to understand ourselves, it is vital to understand and assess these developments. It is to an improvement in that understanding that this study has been addressed.

PART B

LEARNING IN ORGANIZATIONS

Four Case Studies of Education in Industry:
A Model of Information Exchange

CASE STUDY NUMBER ONE

BELL CANADA (ONTARIO REGION)

by

Alan Thomas, Project Director
Reg Herman, Principal Investigator
David Beatty, Principal Investigator
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An Internally Funded Research Project
of the Department of Adult Education
The Ontario Institute for Studies in Education
252 Bloor Street West
Toronto, Ontario
1980

BELL CANADA RESEARCH PROJECT

FOREWORD

This project has been undertaken by the Faculty and Students of the Department of Adult Education of the Ontario Institute for Studies in Education. It has been funded by the internal research resources of the Ontario Institute for Studies in Education.

The project has been carried out principally by Alan M. Thomas, David Beatty, Reg Herman, all faculty of the Department, and by Tedd Weyman, a graduate student. It has been materially assisted by the cooperation of Bell Canada, Ontario Region, and in particular with the assistance of Warren B. Edmunds, General Supervisor, Training and Development; A.D. Collins, Staff Supervisor, Training Development & Research; and Ron E. Parducci, Supervisor, Research and Evaluation who, as well as being an employee of Bell Canada, is also a graduate student of the Department.

We would like to convey our thanks to Bell Canada, to those officials of the Company named, and to all the supervisors and instructors of the training program who, with grace and enthusiasm, submitted to our interrogations. Our insights gained by such exchanges indicated the size and extent of the program and the enthusiasm and competence of its managers.

The publication of the report is subject to a conventional agreement between the Company and the Institute because of the private nature of the activities involved. The study was undertaken in the belief that the Bell Canada program is one excellent example of one of, if not the largest, educational enterprises in a private commercial agency in the country, and that it is important that we understand it and others like it better if we are to understand the nature of the educational activities of our society.

BELL CANADA RESEARCH PROJECT

INTRODUCTION

The educational activities of any society may not be exactly a "seamless robe" but they are certainly related to each other in many complex ways. Principally, they are related because so many individual citizens of the society must pass through or make use of so many of them. It is now a commonplace observation that "schooling" or systematic exposure to instruction is not confined to children and youth, and that most of the current school population, as well as similar populations stretching back thirty years or more, will spend a half or more of their lifetime undergoing one form of instruction or another.

Because we have all been exposed to it, all of us know, or assume we know, the nature and procedures associated with formal, public education. That presumably is one of the factors that makes it public. However, once we leave that system, the educational experience we have becomes increasingly specialized and private, subject to our own choices, and to the immense variety of educational endeavours that are provided both privately and publicly for adults in this society. While we know something of the offerings provided by public and semi-public agencies such as School Boards, Colleges, Universities, YMCA's, and the like, there is an immense range of private agencies about which we know little or nothing.

Few people realize the extent of such offerings, or the range of training they provide, despite the fact that the creation of a "third" educational enterprise, rivalling the public schools and the universities, was signalled as early as 1956 by Harold Clark in the United States. Very little investigation has been undertaken to examine parallel developments in Canada other than the general awareness that they were taking place.

The education of adults tends to take place under the auspices of three kinds of agencies, those specially created for the purpose, of which Frontier College is an example. There are not many in this category in this country. Those originated and designed for the education of children and/or youth, but which have reluctantly or otherwise accepted a responsibility for adult education, such as School Boards, Universities and Colleges.

These are the most visible of agencies, and have grown substantially in numbers and inclusiveness in recent years. Demographic forecasts suggest that preoccupation with adults will become major in the next decade. Finally, those agencies with all sorts of purposes: commercial, governmental, social; agencies that may be private or public, or something in between, that have become engaged in training and education as a means of carrying out those purposes. This is the sector about which we know little or nothing and the vastness of which we only suspect. A recent thorough report from Denmark on adult education in the country observes, "it is extremely difficult at the moment to get a complete survey of the content, methods and extent of these in-service training schemes, but they should nevertheless be included in any long-term status survey of adult education not only because this sector is experiencing rapid development, but because the increase in these activities will lead to greater areas of contact and co-operation between industry's in-service training and other forms of adult education. The expenditure on in-service training is assessed at about 400 million kroner per year of which only about 70 million comes from public funds. In-service training is thus the biggest item in the adult education budget." (Adult Education in Nordic Countries: Denmark, The Secretariat for Nordic Cultural Cooperation, 1976, p. 43) Despite the size of the budget, the size of Denmark, and the thoroughness of the rest of the review, little, if anything, is known of the nature of in-service training. In Canada, in 1976, Waniewicz reported that 37% of all adult learners in the province of Ontario were pursuing work-related and/or employer sponsored courses. (The Demand for Part-Time Learning in Ontario, OECA-OISE, Toronto, 1976). That is probably an understatement, and even then it tells us little about the nature of the courses or the private systems in which they are pursued. Statistics Canada surveyed in-service training in 1964 and again in 1970, but the surveys were not compatible and therefore no trend data could be extracted. At the moment we have little information about the extent of such training in Canada.

However it is not numbers and participants in which we were interested in this study though they are significant enough, but the nature of the training systems to be found inside large organizations. How is the training carried out, who are the personnel responsible and what are their backgrounds, what methods have they developed, how are they applied, and what methods of evaluation do they use? It is this type of information about the nature of a very large educational enterprise carried on in this society under private auspices that we hoped to examine and report.

The Danish report supplies some of the reasons for such information being of importance to the entire society. Large sums of money are expended, some of which through public policy are deductible from taxes. Increasingly, interrelationships

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are growing between these private systems and the public system, similar resources, human and otherwise are either being developed, shared, or competed for. What do changes in financing in the public sector of education mean for the private sector and vice versa? Are we duplicating resources unnecessarily? What greater coherence among the various systems might be developed on the basis of more information about them? A great deal of attention recently has been paid to the "interface" of various public educational agencies, little or none is paid to the interface of those agencies with those under consideration, though the individual must cope with both kinds. Finally, there are some strict educational interests. The development and management of systems of which the Bell Canada system is one representative, means the development of a great deal of experience with problems of instruction and its management. Presumably individuals engaged in these pursuits have learned some things that would be of advantage to the entire educational enterprise. Methods of curriculum design and presentation, methods of the development of instructors, methods of of relating theory and practice, are all implicit, if not explicit, in such activities. Yet there is little or no exchange between the two systems, or the several systems, and the groups of professionals all struggling with similar problems remain largely ignorant of each other. One additional matter is that those who wish to understand the nature of the entire educational enterprise carried out within a modern society, such as that of Canada, who wish to understand the major cultural and technical influences that go into shaping and influencing our citizens, young and old, cannot hope to do so without more knowledge of the activities that we are trying to describe.

II Apart from the initial problem of gaining access to the activities of a large non-educational agency such as Bell Canada, the major problems faced in an exploration of this kind are how to gather and report the information. A description of a single elementary school, of several examples of secondary schools, and even of colleges and universities, will probably suffice to give sufficient insight into most of those agencies in the province or the country. In addition, one can know precisely how many there are, where they may be found, and within a reasonable length of time, how many participants enjoy their offerings. In this case we are in the dark. We do not know whether Bell Canada is representative of anything but Bell Canada, and we do not know how many other programs there are in the neighbourhood, the city, or the province. Indeed it is difficult to find a single person within Bell Canada who knows the entire extent of the training program within that company, nothing of the detail possessed by a single Director of Education about the educational activities over which he or she has command. Once inside

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the company, we do not know the relationship between one unit and another, often there is very little. We do not know now long the instructional events are in each case, how the students are selected or evaluated, and we do not know how uniform the information is.

With the help of Bell Canada officials, we were able to interview the major supervisors of training programs in the Ontario Region which we accepted as a limit of our investigations. Reporting the information however, is another matter. We could have reported each individual item of training in each area and perhaps allowed the trees to entirely obscure the woods. As an alternative we chose to report under a series of headings which emerged as we gathered information from the Bell Canada system, and which seem coherent with our experience with other educational systems. The categories allow some comparison with other educational operations with which we are familiar. Whether they can be applied to other enterprises comparable to Bell Canada remains to be tested in the next investigation.

The categories are as follows:

1. Diagnosis of a Training Problem - how does the problem get identified as a training problem and by whom is such a diagnosis undertaken? Where does it fit in three identifiable circumstances which are: changes brought about by introduction of new technologies, maintenance, in the sense of training individuals entering existing positions, and problem solving.

2. Development of training strategy - how is training related to the operating organization? How is access to appropriate technical information managed and by whom? How are decisions about methods arrived at and course material developed? How is curriculum formulated? How are individuals involved recruited?

3. What facilities and resources have been developed by the company for training? How are they administered and budgeted. What functions do they perform? What tasks do instructors have and how are they recruited and trained? What are the career patterns of administrators of the facilities and of the instructors?

4. How are students recruited for specific programs, and how is the flow of students managed. How many students are there in any specific time period? What are the dimensions of time spent in training, locations, residences, etc.? How are the students paid for?

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5. How is training evaluated? What are the implications of engaging in training at all, deciding whom to train and when, deciding how to train, and deciding how effective the training is in terms of both evaluation of specific courses and particular individuals?

Under these categories we have tried to describe, using examples, specific programs and tried to give an impression of the range of activities. The result may satisfy no one, but more detail in our opinion would have resulted in a tedious report of unmanageable size. We hope that a fair impression of size and method is provided,sufficient to allow readers in three areas, within Bell Canada, within training programs in other non-educational agencies, and within the formal educational system, to draw their own conclusions and use the information to enhance their understanding of other forms of education.

III What conclusions might one draw immediately? We do not know how representative Bell Canada is of other industrial organizations, but we suspect that its activities will be shared roughly by other organizations of similar size and engaged in advanced technology. Those two factors seem to us to be critical.

The numbers of trainees and the expenditures on training seem to us to be impressive. It would be interesting to make some per capita comparison with expenditures in the formal education sector.

We are impressed with the organizational flexibility even within so large and formally stratified an organization. Training does seem to enjoy support and resources in relationship to that flexibility. We are particularly impressed with the significance of the internal "family" loyalties, and suspect that the success of some of the training is due to those loyalties and the relatively efficient communications they allow.

We are enormously impressed with the amount of time and effort that goes into course design and preparation. Again it would be interesting to compare that development with similar development associated with a course in the public schools or the colleges. Of equal interest is the experimentation and experience with forms of "self-paced instruction" which we suspect is greater than that possessed by the public educational system.

We are impressed with the overall supportiveness of the training programs.

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There is little indication of a need for failures, or of the wish to induce a feeling of failure. Certainly it is in the Company's long term interest that programs should be "programmed for success" as one supervisor described it, but the general inclination of the training programs to encourage individuals to grow and develop capacities seems undeniable and attractive.

Finally, we are impressed that the problems of evaluation being addressed are the same as everywhere else, though there seems more opportunity to watch actual processes of evaluation at work in this setting than elsewhere.

Anyone reading the report may, and hopefully will, come to other conclusions. The preceding list includes only some of the factors that seemed to us to merit special attention in this exploration. A large number of Canadians are receiving training at the hands of this employer, and since such training inevitably shapes the quality of the life those citizens will have or expect to have in this society, to know something of its dimensions seems to us to be of very great importance indeed.

BELL CANADA RESEARCH PROJECT

THE COMPANY

Bell Canada, hereinafter referred to as the "Company" is a large telecommunications enterprise. It employs in total 57,869 people. The three major units are Bell Canada, Northern Telecom, the manufacturing arm, and Bell Northern Research. For a variety of reasons this study encompasses only Bell Canada, and only the Ontario Region of Bell Canada's operations. The number of employees involved in that region is 28,576 . It is our belief that more purpose would be served by examining one relatively self-contained unit of the organization.

In terms of insights into the role of Training, it has been of special importance to this Case Study that about five years ago, the Company began to phase out of its training agreement with AT&T, and during the time of the Study interviews, the Company was moving towards greater centralization of Training. The organizational chart of Training was changing continuously during the interview period (November of 1976 to June of 1977). See pages 5, 6 and 7 of this section.

A brief labelling of the Company's departmental organization vis a vis Training is necessary to understand the Case Study descriptors; organizational divisions are so strong that they are felt to be Company "families":

Plant: At one time included some of the engineering family, but now the crafts, technicians, installers who install and maintain equipment leading to outside facilities; switching centers (giant computers) are installed by Northern Telecom, but maintained by Plant.

Outside Plant: Engineering, under the division called Regional Performance, and supported by the Technical Development Department.

Traffic: the maintenance of communications, determining the quantity of lines, operators, the equipment necessary to connect the customers: Operator Services, Facilities, Business Services.

Commercial: Service Representatives, Business Representatives and Order Processors.

Sales: Sale of Company Services and Products.

Training: Located in Personnel, originally responsible for management training and consulting, and training of training staff.

At the time that the AT&T agreement was phased out, Training Staff and budgets (except the management courses) were located in the Line Departments.

The Company has seven major managerial levels, VII representing the President. Roughly, Levels IV to VII are considered senior management. The General Supervisor, Training, is a Level IV. The Supervisors of the Departmental Training operations are at Level III, with Training staffs ranging in number from nearly sixty to six (typically, Level III's with small Training staffs would also carry non-training responsibilities). An Instructor or Course Developer (Designer) may be at Level I, II or non-management, depending on the range and degree of authority he/she has to conduct analysis of a 'training' problem and make the recommendation to Level III to act on that analysis.

The Company is centralizing Training at the same time as it is changing departmental organization into new organic lines of communication and cross-departmental management (eg: Customer Service and Network Service), a process to be completed by 1980. Cross-departmental management is not new to the Company; major Technological and Methods innovations, including all the planning for new training materials and procedures, are planned and implemented by three to five year Project Teams, composed of Departmental representatives organized on Management Levels, typically II to V.

The Training Organization

As indicated in the Introduction, centralization of training had begun when this study was initiated in the Fall of 1976. Before that, only Management Training (for Level I and II) and Consulting (and New Manager programs) were in Personnel. By November of 1976, Plant Design and Commercial Design (both under Level III's) had been moved to the new centralized training section.

When centralization is completed, all training, under a Level IV, will be in Personnel. (Data Communications Training is, and will continue to be, independent.) The staff consists of ten Level III's, and about 130 Level I and II administrators, course designers, instructors, and clerical support.

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As the changeover was going on during this study, a number of concerns were expressed on the pros and cons of centralization.

PRO

With training staff and budgets located in line departments, training staff were especially susceptible to disproportionate cutbacks during any budget squeeze. Cutting training was seen, apparently, as a means to quick savings with a delayed penalty. A cut in staff meant that trained course designers and instructors were sent back to line jobs. With centralization, cutbacks may be more proportionate.

A spin-off of this might be longer continuity of experience in Training and increased possibility of developing a Company career in Training, leading in turn, to a concentration of greater expertise in the Training group.

Towards that same goal, centralization is expected to increase the sharing of expertise among the training staff. Previously, staff might be loaned from one training group to another, but there was little intercommunication; a Regional Training Council met two or three times a year. Centralization has been partly physical as well as managerial: administrators, course developers and some instructors are now located in a new building. Presentation is still scattered in a dozen locations (including Ottawa, Belleville, Hamilton and Toronto).

Another possible advantage of centralization relates to the Company decision to reorganize across departmental lines by 1980. With Training segregated in Departments, its contribution to the change might have been problematic. In other words, situating Training where it can contribute to the Company's reorganization may have influenced the decision to centralize. Whether this is the case or not, a function of centralization, and perhaps of the increased power of size in staff and budget, is the increased ability to undertake strategic planning. (this is not meant to imply a previous lack of such planning: eg. circa 1974, Course Development was separated from Presentation in order to strengthen Course Design skills, which it has done.)

Other possible advantages of centralization are: increased potential for large-scale team response to major changes; better coordination for change-overs; wider range of expertise and greater overall flexibility; greater potential for research and experimentation; greater stability, security and significance for career development among the training staff.

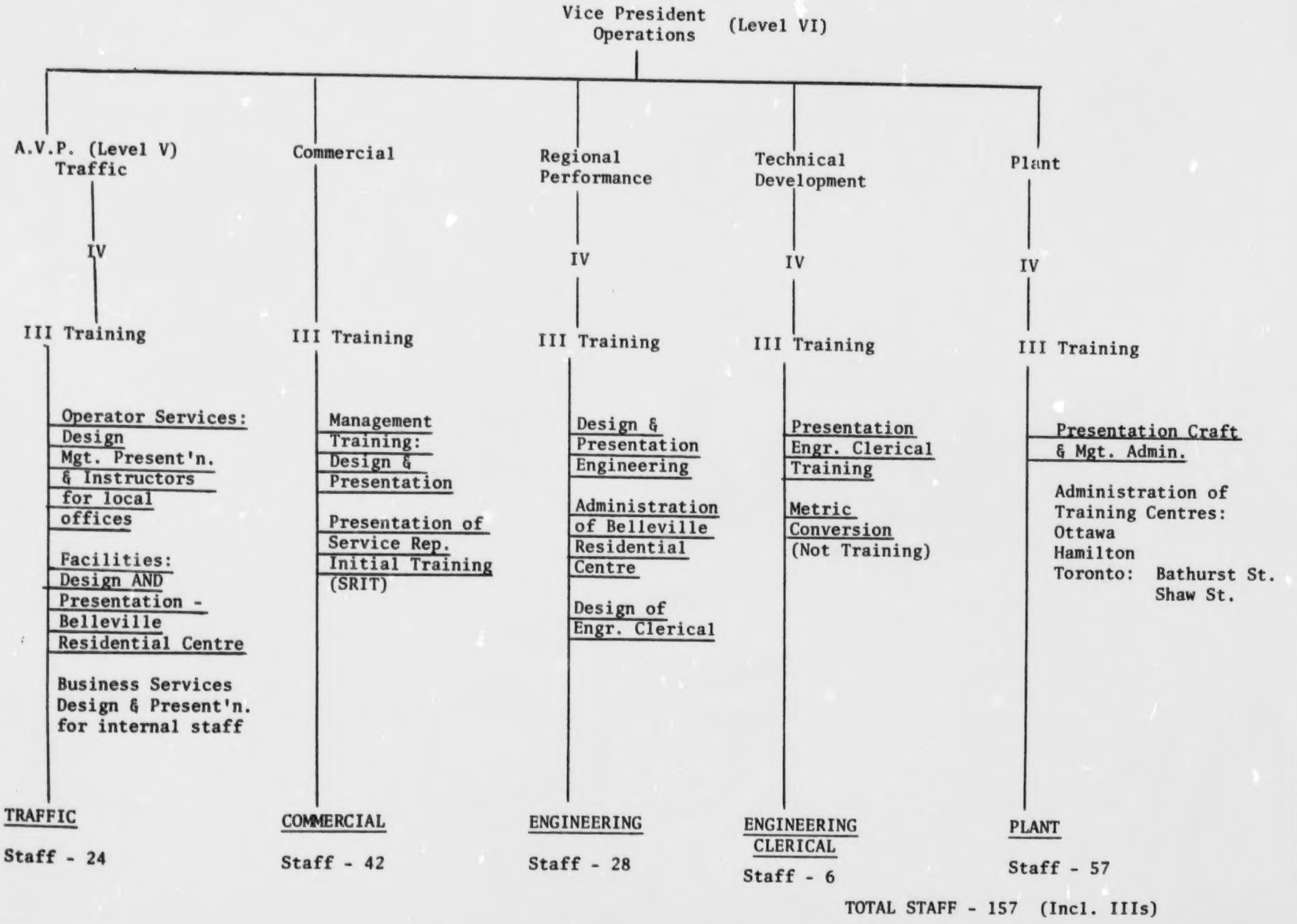
CON

The major problem of centralization is the loss of close interface with Line Departments. The Supervisors of Training Units in Line Departments rely on a variety of formal and informal methods to maintain communication networks with the Field. For example, Level III of Traffic Training attended all Traffic Department meetings. Level III of Commercial Design has developed an informal network of personal contacts throughout the Region (this will not be lost through centralization until he is replaced). In sum, it is recognized that special efforts, new procedures, will have to be invented to maintain close ties with the Field.

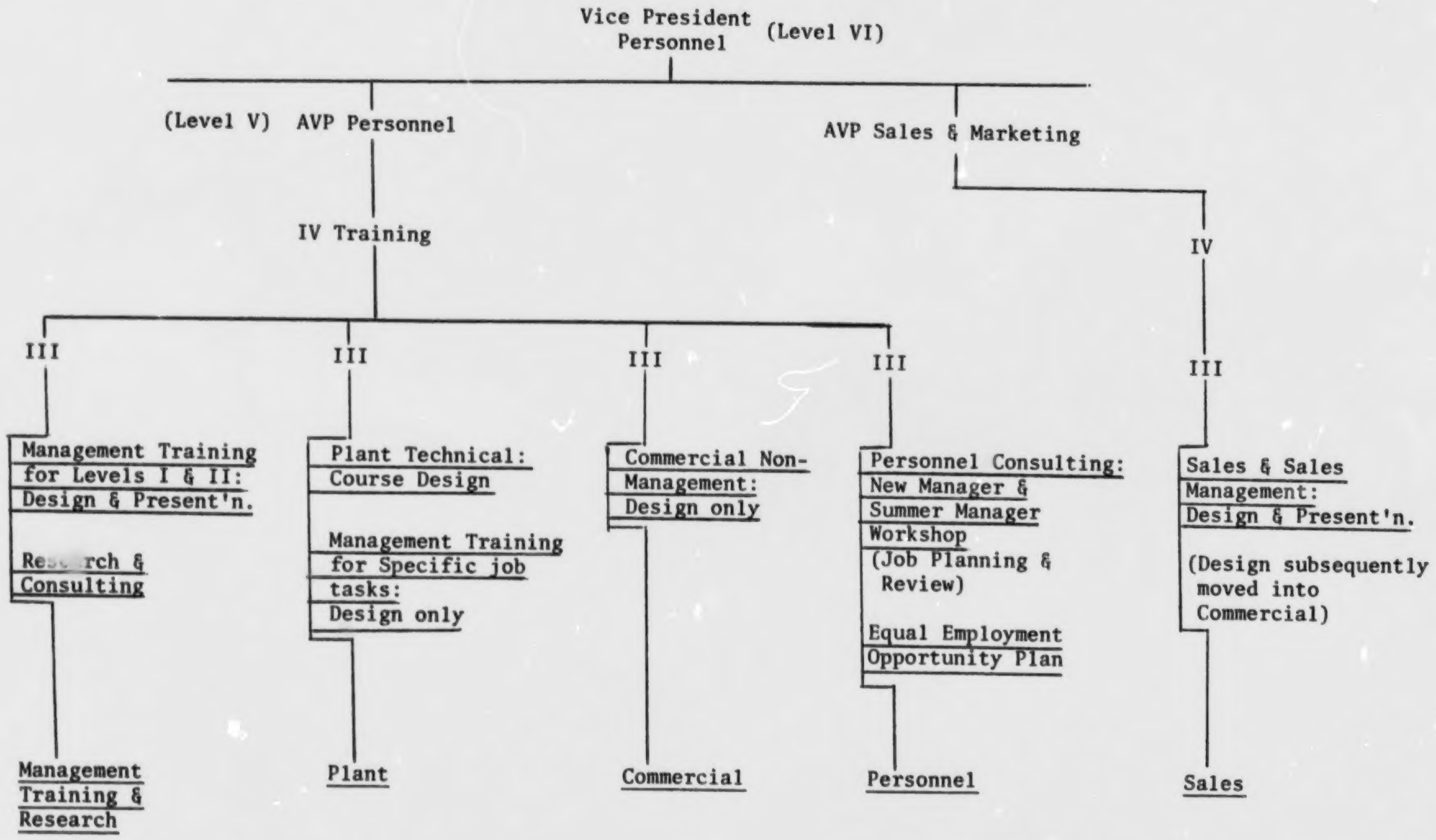
As the effort to improve the quality of training often means longer lead times for better research, planning, implementation and evaluation, there may be increasing friction with demands from Line operations needing training in a hurry. On some occasions in the past, Line supervisors have compelled compromises of quality of training to shorten lead time; presumably they will no longer have this power. However, the Line Operator can decide to do the training himself or go outside the Company on the basis of advice provided through consulting resources in the Training Units.

With few exceptions, the training staff have been line people on flow-through, who returned to the same level in line, sometimes with the feeling that they had just learned their training jobs. The advantage of this is that they bring their line experience to the training group and function. If centralization reduces flow-through in order to build expertise, the disadvantage is the loss of the continuous contribution of this Field experience.

NOVEMBER 1976


Vice President Operations (Level VI)
A.V.P. (Level V) Traffic
IV
III Training
Operator Services:
Design
Mgt. Present'n.
& Instructors
for local
offices
Facilities:
Design AND
Presentation -
Belleville
Residential Centre
Business Services
Design & Present'n.
for internal staff
TRAFFIC
Staff - 24
Commercial
III Training
Management
Training:
Design &
Presentation
Presentation of
Service Rep.
Initial Training
(SRIT)
COMMERCIAL
Staff - 42
Regional Performance
IV
III Training
Design &
Presentation
Engineering
Administration
of Belleville
Residential
Centre
Design of
Engr. Clerical
ENGINEERING
Staff - 28
Technical Development
IV
III Training
Presentation
Engr. Clerical
Training
Metric
Conversion
(Not Training)
ENGINEERING CLERICAL
Staff - 6
Plant
IV
III Training
Presentation Craft
& Mgt. Admin.
Administration of
Training Centres:
Ottawa
Hamilton
Toronto: Bathurst St.
Shaw St.
PLANT
Staff - 57
TOTAL STAFF - 157 (Incl. IIIs)

NOVEMBER 1976



Vice President Personnel (Level VI)

(Level V) AVP Personnel

AVP Sales & Marketing

IV Training

IV

III

Management Training for Levels I & II: Design & Present'n.

Research & Consulting

Plant Technical: Course Design

Management Training for Specific job tasks: Design only

Commercial Non-Management: Design only

Personnel Consulting: New Manager & Summer Manager Workshop (Job Planning & Review)

Equal Employment Opportunity Plan

Sales & Sales Management: Design & Present'n.

(Design subsequently moved into Commercial)

Management Training & Research

Plant

Commercial

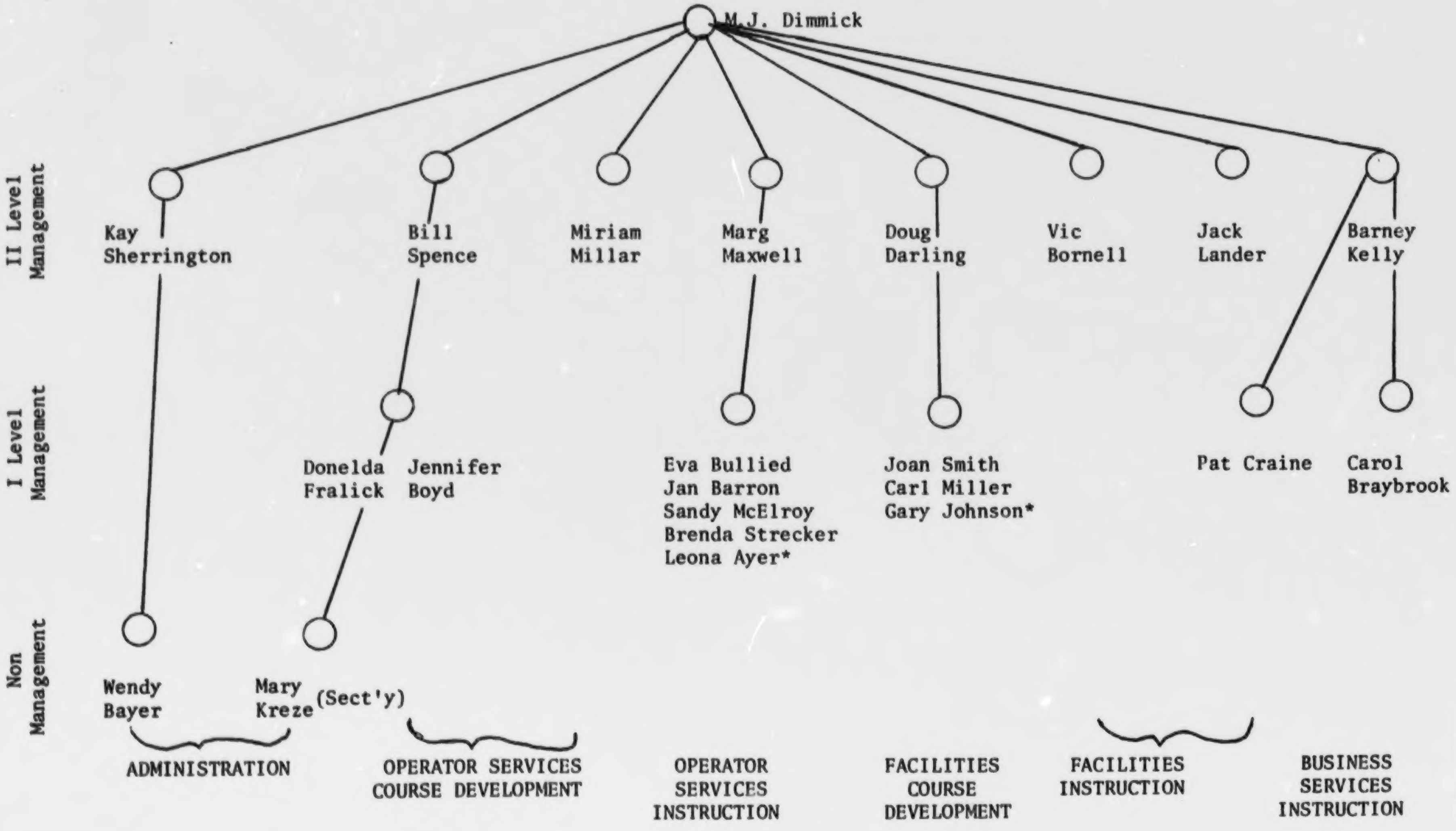
Personnel

Sales

Staff - 16	Staff - 24	Staff - 20	Staff - 10	Staff - 12

TOTAL STAFF: 82

Ontario Region Traffic Training (1977-02)


M.J. Dimmick
II Level Management
I Level Management
Non Management
Kay Sherrington
Bill Spence
Miriam Millar
Marg Maxwell
Doug Darling
Vic Bornell
Jack Lander
Barney Kelly
Donelda Fralick
Jennifer Boyd
Eva Bullied
Jan Barron
Sandy McElroy
Brenda Strecker
Leona Ayer*
Joan Smith
Carl Miller
Gary Johnson*
Pat Craine
Carol Braybrook
Wendy Bayer
Mary Kreze (Sect'y)
ADMINISTRATION
OPERATOR SERVICES COURSE DEVELOPMENT
OPERATOR SERVICES INSTRUCTION
FACILITIES COURSE DEVELOPMENT
FACILITIES INSTRUCTION
BUSINESS SERVICES INSTRUCTION

* Business Services

1. DIAGNOSIS OF TRAINING NEEDS

For introduction of new technology:

With a lead time of three to five years (or longer) the Company initiates Project Teams, with Training represented from Level IV down, i.e. the Team is composed of cross-departmental sub-teams at each managerial level.

However, Training-Line communication networks vary within the departments:

Traffic: The Staff Supervisor of Traffic Training (Level III) attends all Traffic Department meetings; attends Facilities and Business Service Meetings when a training item is on the agenda. The Level III is in charge of both Course Design and Presentation.

Plant: The Level III for Course Design has a Level II on the Project Team. The Level III for Presentation (in six schools) maintains a close formal network but also uses an informal personal network.

Engineering: The Level III is responsible for both Course Design and Presentation, and management of the residential Training Center (Belleville). In addition to representation on the Project Teams, the Level III uses a Training Advisory Board (twelve people from Engineering who meet three times a year) and Training Steering Committees for four technical subdivisions.

Outside Plant (Clerical): This small support group for Engineering is under a Level III with responsibilities other than training (in the Technical Development Department) and so does not figure prominently in the network.

Commercial: The Level III for Course Design has developed, based on a long and personal involvement, an informal network throughout the Commercial Department, and works very closely with his Level III for Presentation.

Sales: Since his Course Design has recently been moved into Commercial, the Level III is responsible for Presentation only, and must negotiate continuously over lead-time with the Commercial Course Designers.

Finally, the communication network is supported by a Training Council for the Ontario Region, which meets twice yearly, and also meets with its counterpart body in the Quebec Region. (Eastern Region)

Training new staff (or staff in new positions):

Traffic: "Training Coordinators" have been appointed in each District and in the various Telephone Companies that are served through training contracts by the

/1.2

Company. In September of each year, these Coordinators estimate the number of trainees they will send to each of the courses offered during the year. The Level III adds an increment to those estimates, and in recent years even that increment has been exceeded by demand, which has been increasing annually. The Level III plans to increase the number of Self-Paced Learning Courses in order to reduce the delays in meeting new staff needs.

Plant: A great deal of the training is already Self-Paced, so there is continuous flow in the six Training Centers.

Engineering: There is a continuous flow of demand that the residential Center is always able to satisfy, though not always at the time required.

Outside Plant (Clerical): New staff may be on the job six months before training, though a preferable on-the-job preparation before training is considered to be three to four weeks. The Level II Supervisor spends "too much" time selling training to the field. Since 1974, training has converted from entirely Instructor led to 50% Self-Paced, with the objective to become 100% Self-Paced.

Commercial: The largest group is served through continuous intake into a Self-Paced Learning Course (Service Representatives Initial Training - SRIT) of fifty-four modules presented in Toronto and Ottawa, plus Continuation Training modules in the home offices. Groups whose smaller size and/or continuously changing procedures, militate against Self-Paced course design, are trained in Instructor led groups.

Sales: Though mostly Instructor led, the school, in new quarters, has little problem meeting new staff needs.

New Managers: With one foot in Training and one in Personnel, a special consulting group under a Level III, called Employee Development, runs workshops for new Level I managers and for their Level II bosses to help each develop a Work Plan and Review procedures. After the workshops, this group continues to offer consulting to both new managers and their bosses during the one-year trial period. Consulting is also available to anyone in the Company.

The Personnel-Consulting group also runs a Summer Institute Manager Development Program (students), and an Equal Opportunity Program.

Refresher, up-dating, raising performance standards over time, planned change:

There are whole ranges of training courses that are continuously being developed in the Company that emerge from demands from the Field, studies by the Training Unit gradual change, outside influences, etc. Even though these courses may be developed out of expressed needs, they generally have to be promoted or 'sold' by Training to the Field.

A few examples indicate the range, but do not do justice to the variety, flexibility and diversity of these courses, which range from one half a day to thirty days (SRIT in Commercial), or ten weeks (switcher training in Plant).

i) In Plant and several other departments, managers asked for management training oriented to the specific tasks of their jobs. While they could learn managerial skills from the Management School sequence of courses, they wanted more help in job-specific management.

ii) A recently completed study by Training of Level I and Level II managers revealed felt needs for training in: Time Management, Effective Presentation (of department proposals), Motivation, Letter and Report Writing. New Level I managers expressed the need for courses in Planning and Organizing, Company practices and Labour Relations. One of the early results has been the purchase and evaluation of several Letter and Report Writing courses.

iii) In the Sales Training group a major study, taking more than half a year to complete, came up with a range of training concerns (including, for example, boss-subordinate review skills). When the Course Designers analyzed the report, they needed two years to develop a course that would meet Training Development Standards. It was felt that the target population was too small to warrant that expense, and no compromise appeared satisfactory. The project was dropped; the training was handled by bringing in experienced Supervisors to make group presentations. This dilemma, lead time and cost vis a vis the quality of the training, is faced by all the training groups, and will be affected by centralization: there will be more determination to maintain the quality of training strategies.

iv) Gradual change of courses, i.e. continuous up-dating and refining, is a responsibility of course designers, but instructors also implement changes, sometimes to the disgruntlement of the designers. Where the functions of design and presentation are performed by the same people, as in Engineering, course change is a continuous process. In three to five years, though the course title remains the same, the content will be entirely different from the original, and staff are urged to, and do come back, to take the course again.

v) Another factor in training decisions is the experience of other companies.

/1.4

For several years, the Company participated in AT&T's Fair Share agreement for course development. This is being phased out because of increased technological differences between the companies, but training staff still keep au fait of United States developments, often by travel.

Problem Solving (for Training):

The critical questions bearing on this concern are: who decides whether a problem can be solved by training, and what systems exist for identification of training problems?

The document variously described in the Company as the 'Bible' and 'the book you sleep with' is Training Development Standards bought from AT&T. While all the 'Phases' of the system provided are deemed important, great emphasis is placed on the first: Pre-project Study and Job Study Planning, to determine whether there really is a training problem.

The Required Reading list for Course Designers also includes the Mager and Piper text Analyzing Performance Problems, which emphasizes that for many problems training is an inappropriate solution.

In the last three years, the Company has put all Training staff through PRAXIS Performance Analysis Workshops. Two Level II Supervisors in the group responsible for Management Training and Research, were trained and certified by PRAXIS in New York to run the three-day workshops in the Company on a franchise basis. The Company experience has been that 85% of the problems brought to PRAXIS workshops are not training problems but what the model labels "deficiencies of execution" (rather than deficiencies of knowledge). The overall effect is great emphasis on 'front-ending' in training studies.

Increasing numbers of Methods staff have also been going through the workshops, and it is considered an advantage that the Methods people thus learn the common language of training.

Other resources that play a role in problem solving: the Consulting group for New Managers (the mandate for their consulting is broader than that) who act as a kind of referral service; a Research and Evaluation team in the Management Training group; and trained Leadership Consultants, i.e. managers who have been

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trained to investigate and trouble-shoot problems, and if they have training dimensions, help the Field people to write a training contract.

2. THE TRAINING RESPONSE TO IDENTIFIED PROBLEMS

i) Front-ending

Perhaps the only common agreement of the Company's Training groups is the importance of front-ending, the pre-project study. Nothing is assumed. Long before the definition of the training problem occurs comes research and analysis of what is and what is not a training problem. Typically, a pre-project study will include descriptions of the job, the methods, the interactions of staff, and will involve many interviews; typically, it will separate training from non-training problems as diplomatically as possible (avoidance of criticism); and not atypically, when completed, a person needs two hands to lift it from a desk.

Yet, sometimes, all that happens is the pre-project study; the Field says "We don't want a Cadillac in two years, we want a Volkswagen in January", and the Field ends up doing it themselves. Sometimes, the Field says "Give us a course" when the problem is not training, the pre-project study says it is not training, and the course designer who proceeds to develop the course, knows it is not training. Centralization is intended to reduce this.

Of course, front-ending of major team efforts in response to new technology may have as much as five years' lead time, and the benefit of a concerted interdepartmental network (Project Teams).

The greater problem, and one for which there appears to be no real solution, is the task of developing training for the maintenance of new technology before it is in the Field. Field testing of new technologies provides some sense of maintenance tasks but not to the level of the Training Development Standards.

Once a commitment has been made for a major training project, such as the two-year team development of the Service Representatives Initial Training (SRIT) Course of Self-Paced Learning Modules, the importance of front-ending can be gauged from the PERT chart appended. Of the year and a half to introduction of the course, the chart indicates more than three months of front-ending, but in fact, the process is so continuous that by the time the instructional strategy has been decided, "writing the course is the easiest part".

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ii) Instructional Strategy

Formal: There are many varieties of formal presentations of courses in the Company, but the crucial distinction that emerges is two-faceted: Self-paced or Leader-led group instruction; and Highly analysed task-specific learning or Whole picture job learning that the Trainee applies to his/her situation.

Risking generalization, the cadre of 75-plus course designers and some of their Level II and III Supervisors, falls in the former camps; the Instructors (with the possible exception of the Supervisors trained for Administration of Self-paced Instruction (ASPI), and the Engineers and Management Trainers, feel that the continuously shifting needs of trainees are more adequately met by the latter modes.

Most of the factors that weigh on the side of Self-paced Learning Modules are well known: access to training when the learner is ready (if a person moving into a new position has just missed a leader-led course, he/she might have to wait six months or longer for a repeat of the course, or worse, get sent by a supervisor, without adequate prerequisite training, into the next course available even if it is irrelevant); the likelihood of more rigorous research and development of DACUM style courses, in terms of quality generally and task specificity in particular (i.e. the greater likelihood of perceivable and real relevance for the learners); in the modular form of Self-paced Learning in the Company, there is a combination of flexibility for adapting the course to the tested entry skills of the learner (though some Trainees think they are supposed to play dumb and take Modules of work they already know), and flexibility for updating changes. If unanticipated changes happen too fast, 'riders' get tagged on to the Modules to tell the Trainee that what he/she has just learned is partly wrong, "this is the way it now goes". In contradistinction to all our school systems, time becomes the variable and learning is the constant. The Company's training administrators sometimes keep fast learners in class -- Company hours are Company hours -- and 'reward' them in a variety of ways. Other assets are consistency of content, sequence, method, etc., and reduction in Instructor biases. But in the best-designed courses, Instructors find that they can improve the relevance of material through their personal sensitivity to the fresh conditions and experiences that Trainees bring from the Field. The privacy of the Self-paced Learning experience produces a positive learning climate -- Company research showed that despite all efforts to make group learning supportive, success or failure was public and so included traumatic experiences that were counter-productive to learning. If the average

/2.3

time for a Self-paced course is eight days, and a Trainee takes ten days, the Field Supervisor asks "Have I got a problem here?" Finally, with rare exceptions, feedback from the Trainees has been very positive and graduates of the Self-paced courses appear to be more self-reliant and self-assured.

The communication between the ASPI Supervisors and the Course Designers is close and continuous, especially during actual course development. Bi-weekly meetings are laid on during critical periods of course design, and are revived when new problems emerge. In actual Presentation, the ASPI Supervisor is not a passive monitor; he/she has learned four roles:

i) Diagnostician and problem-solver: if there's a block in the learning, the Supervisor must be able to diagnose the problem and recommend remedial action.

ii) Systems Manager: makes sure that all materials are there when the Trainee needs them.

iii) Performance Manager: Supervisor-Trainee interaction on a one-to-one basis, with a concern for motivational and other factors that facilitate the learning process. The Level III for SRIT Presentation requires his Supervisors to take a one-week course in inter-personal communications.

iv) Supportive role: if a Trainee is from out-of-town and worried about train connections, money, family, etc., the Supervisor gets these concerns looked after.

In no sense is there a total Company commitment to Self-paced Learning. For small populations and groups whose methods change frequently, the time and cost of developing good quality Self-Paced courses are prohibitive. Even Presentation is not necessarily less costly than leader-led courses: the ratio of ASPI-trained Supervisors to Trainees in the SRIT course averages 1:7 and even less, though since the introduction of SRIT the overall number of Commercial Instructors has been halved. And in many cases, the learning value of group learning experiences is considered paramount.

iii) Continuation Training

This process is exemplified by the Commercial Course Development group. When a student has completed the SRIT course, she/he has learned about 85% of the Service Representative job content, which represents about 95% of the job. The remaining 15 - 5% is called Continuation Training (CT) and is handled through CT packages. In each office, depending on the size of the staff, there are one or more learning positions. When the basic course graduate reaches a point where he/she can take on a more sophisticated task, and that task is occurring, the Supervisor selects the appropriate CT package which the student takes to the learning position. These packages are self-paced, almost self-administering, including a self-test. There are 18 to 20 of these modules depending on the office needs.

How many of these a student gets, and over what period of time, depends on both the office and the student. Thus, in an office where the task never occurs, the Supervisor will not give the student that module.

Every office automatically gets a supply of all CT packages. The Training group is informed when a student completes any module, with the module's evaluation by both student and Supervisor. This triggers the module's replacement in that office, tells the Level III what goes on in a particular office and gives feedback for module improvement.

The linkage of the CT packages to the student's successful experience in the SRIT course may be a factor in the success of this method. A pilot experiment of 'Cold Storage' Training, placing training packages in several selected offices, has apparently not been successful.

Correspondence courses are also used by the Traffic and Engineering Training groups. In the case of Engineering this amounts to putting together materials in response to particular requests. The Traffic Supervisor, however, takes the view that considering the geographical population his Department serves, Programmed Instruction is a tool that the Company has not used enough in the past. With two hundred Facilities managers spread throughout the province, mail-out Programmed Instruction eliminates travel and accommodation costs, and three-month waiting periods.

iv) On the Job Training

The training of office supervisors who are themselves responsible for training is well established in Traffic, Commercial and Customer Service Training. There is no compulsion on a Manager to send a newly appointed Supervisor on a training course, but the practice is almost a rule. The complaint of Training is that there is sometimes an excessive period of time on the new job before an opportunity or release for training occurs.

v) Documentation

The term 'Documentation' was referred to by many of the Training Staff, but it is in Plant Design that it is most emphasized as a new concept of training itself. The Supervisor of Plant Design is proposing a formula for training by and in the use of Documentation, that is, technical support documents, that will cut down on problem solving and training time.

Rather than documenting circuits and mechanics, they will be defining and delineating the task of operating the equipment. The objective is to produce such good quality documentation that training will be the teaching of the documents' use, not the task of doing the job. In a sense, it is training to learn.

vi) Miscellaneous

The units described represent the main training activities undertaken by the Company. However, even using a tight definition of instruction and self-conscious learning, it is possible to find additional training activities that seem to be "casually" located in the Company organization. Public speaking courses are offered by the Public Affairs Department, and a Toastmasters Club is actively supported by the Company. Probably one could find other comparable activities where a great deal of learning occurs which are so integral a part of the internal landscape as to be almost unnoticed.

The decision to concentrate on the Ontario Region means that what is presented here represents only part of the Company Training operation. The Eastern Region, mainly Quebec, provides matching resources for its employees, with the training activities entirely in French. Estimates are that the numbers and expenditures involved are slightly less than those to be found in the Ontario Region.

Headquarters in Montreal continue to provide some training, mostly of a managerial nature. A substantial company library is located there.

There are several other distinct corporate entities, like Data Communications that maintain their own separate training establishments. There is some co-operation for example, the use of the Belleville Center by the Data Communications training personnel, though in most cases staff and facilities are quite separate.

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vii) Tuition Re-Imbursement

Like other companies of its size, the Company maintains a policy of supporting individual efforts of self-development. Such a policy can be regarded as the exercise of the "buy" option in the make-or-buy dilemma. In this case the Company, through individuals, is buying formal educational resources from the society at large. Any employee may apply and if the program to be followed is judged to be of some future advantage to the Company, 75% of the tuition fees are paid by the Company upon successful completion of the program.

For the Educational Assistance Plan year of 1975 07 01 to 1976 06 30, nine hundred and eighty-seven applications were received, of which three hundred and seventy-two were reimbursed by 1977 01 30. The other applications were either not approved or the courses were not yet complete. Three hundred and seventy-two represents 55% of the number of people who were reimbursed in the Ontario Region.

Based on three hundred and seventy-two applications of people who successfully completed their course:

1) 15 completed High School courses
2) 151 completed Community College courses
3) 191 completed University courses
4) 14 completed skill training courses (e.g. Typing, shorterhand, locksmithing)
5) 1 completed a seminar at Western University in the Business Area

3. RESOURCES

Almost anything from the support of senior management to supplies allocated to a function outside of the immediate demands of production might be termed a resource. In this case we are looking at major instructional or training functions, though even in some of these cases, such as the numbers of classrooms, one runs into difficulty. Taking up almost the entire second floor of the new building at 330 University Avenue there is a complex network of conventional conference rooms of varying sizes and equipment which may, at any time, be used for training purposes. At the same time, the scheduling demands of a number of the training units for example, Employee Development, necessitate the extensive use of commercial facilities that have become so familiar as profitable additions to hotels, motels and convention centers. To limit the estimate of the amount of instructional "space" that the company uses in any one year to the "centers" about to be described would be misleading indeed. Nevertheless the existence of substantial space as part of the "precincts" of company operations requires some specific attention. Writing in 1956, Harold Clark* observed that even by that time in the United States, the "educational" resources to be found within large non-educational enterprises with respect to both space and equipment, widely outstripped any such resources available to the entire formal public educational system.

The resources of this nature that have grown up as a consequence of the company's training needs, which are of a sufficiently demanding and constant nature as to necessitate direct access and control, are extensive. There are at present about seventeen identifiable "centers" ranging from the facilities of the residential center operated by the Engineering "family" in a Four Seasons Hotel, to two related rooms used by Customer Services, a section of Sales, in downtown Toronto. In between we find Commercial and Sales with five centers, four in Toronto and one in Ottawa; Plant with one and a bit in Ottawa, four in Toronto, and a part-time center in Hamilton; and Personnel, Management Training maintaining a group of conference and discussion rooms, with staff and student lounges, as does Sales. There are no training centers in the western end of the region, though most of the existing centers will send occasional programs to be held in that part of the region, and consulting, counselling and correspondence, self-paced and otherwise, is regularly provided by most units.

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*Clark, Harold F. Classrooms in the Stores, Classrooms in the Factories, Classrooms on Main Street; New York University Press, New York, 1956

With the one exception of the Management Training Center in Toronto, all the other centers are presently managed by and responsible to the major families of Plant, Engineering, Sales and Traffic. The present move to group all training under the Training Division of the Personnel Department is slowly altering this pattern as the various groups are transferred. At present their budgets are contained in the budgets of the staff functions of the various departments, and by and large in this respect, the past few years have been years of slow but steady growth. The results of centralizing both the operations and budgeting of all of these undertakings remains a matter of conjecture.

The Belleville Center located in the Four Seasons Hotel has been open since 1971 though the company has maintained a training function there since 1958. The instructional facilities amounting to about twenty classrooms and utilizing approximately one hundred and ten rooms in the hotel for nine months of the year is used by three departments or groups in the company: Engineering, Traffic and Data Communications, though the Engineering Department itself maintains the center. All classrooms have VTR equipment available, computer terminals, and various other kinds of equipment. There is also a wide range of recreation and social facilities.

The working day is the same as the company day, though many students are expected to, and do, work on projects during the evenings. Most students arrive on Sunday afternoon, have an orientation session that evening, and leave after lunch on Friday. If the course runs over a week they go home for the weekend and return. The Company actively sells its training programs abroad through a special unit and there are always foreign students at the Center for varying periods of time. Most courses are of one or two weeks duration, though Data Communications runs courses which last as long as nine weeks.

Class sizes vary from as small as six, and rarely larger than twelve, depending upon the nature of the instruction. There is a modest library. The administration staff of the Center comprises seven people, with an additional twenty-one instructors and course designers. In addition to that, Traffic maintains five instructors, and Data Communications, eight.

Instruction is, for the most part, leader-led, though the Center has moved increasingly in the direction of more discussions, projects, and trainee presentatio

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Courses for the engineering trainees, who make up about half the student body, are largely related to understanding the nature of new technical developments in communications and the managerial implications. The Center also acts on a consulting and counselling basis, referring requests to resources outside the company, or responding with special programs and resources. A considerable amount of correspondence work is maintained, much of it associated with the work required before the trainee actually attends the center.

In other areas the Company has been moving with considerable speed into "self-paced" instructions. Engineering Clerical Training (Outside Plant) and Plant, Craft and Administration instruction is almost entirely on a self-paced basis. Therefore the centers maintained by Plant present an entirely different picture. Since the shift has been relatively recent, classroom space in the variety of buildings or parts of buildings is still being altered from lecture facilities to the self-paced arrangements. Instructors are shifting from presentation of a conventional nature to coaching, counselling and assessing. Understandably resources for design have increased considerably, though they still appear to be insufficient to meet the instructional demands, so that the systematic separation of the two functions appears to have a considerable way to go, if it is entirely possible. The Plant facilities include a great deal of communications equipment, or simulations of such equipment, and there is constant stress to have access to the continuous flow of new equipment being introduced into company operations. The operation demands of the Plant Centers are those of maintaining the least number of vacancies among the self-paced positions, and continuing to justify the value of instruction in competition with learning on the job.

None of these centers operates on a cost-recovery basis within the company. Budgeting, at least for the time being, is separate from the immediate recruitment of trainees or provision of instructional services. Budgets are made up of three major segments; instructor salaries, travel and miscellaneous instructional costs. Each administrator is required to project budgets several years ahead, and to justify any increases on the grounds of predictable need.

Engineering Clerical Training has pursued self-paced instruction to the point where a great deal of their instructional work is decentralized, with

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district offices maintaining some learning positions for which the center provides modules of instruction. In this case the division of design and presentations apparently works very well, with the maximum degree of decentralization and responsiveness.

The one center that is not administered by a "line" organization is the Management Training Center located in Toronto. In this case, general management training is provided for all managers who have been longer than one year with the company,other than some brands of specialized and advance training provided by Montreal Headquarters. Three conference rooms are flanked by six or more small discussion rooms with access to VTR and other training resources. No residential facilities are involved, either here or in any other center with the exception of Belleville.

All courses in this center are of one or two week duration and for the most part are leader-led. Various experimentation takes place with purchased programs from various sources outside the Company.

The administrators of each of these centers, without exception, have come from within the company, and in the most cases from line positions of various kinds. Most operate centers within the family in which they have spent all or most of tneir time. A few have been deliberately moved among families, some have sought such opportunities. Few, if any, expected to find themselves in "teaching" positions, not all of them like the work but all bring both enthusiasm and commitment to it. None have much, if any, formal training in education or instruction though a good many are demonstrated learners having completed a variety of formal post-secondary programs while in the employ of the Company, or having engaged in a relatively lengthy series of short courses and workshops provided within the Company. All these administrators are level three, some will move on to other line positions, some will retire from the position they hold now. While the Company obviously has been supportive of the consistent development of these centers and programs, it remains somewhat ambiguous as to whether such a position is a promotion plus. Some incumbents regret a sense of being distant from the line preoccupations of the Company, some seem unsure of what this particular experience contributes to future positions. Perhaps it is simply that most of the incumbents joined the Company before most of these positions existed, and no one in the Company knows their precise significance to the overall operations.

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Tenure seems to vary, which again is a product of novelty and growth. Each one of the present incumbents has contributed considerably to the growth and in some cases radical change of the instructional techniques with which the particular center is associated. As described there is a wide variety of these techniques and of opinion about them. The result of the growth of the centers within operating departments has meant that these position holders know very little of each other and of the precise nature of their operations. Centralization will, of course, alter that and a great deal of exchange of information and experience will be necessary. With one or two exceptions among those who have had a broader experience across the country, loyalties to "home" families are pronounced and powerful. Most expressed some interest in further training for themselves though were vague about what it might be, with one exception. None thought they would have much to learn from formal educational sources.

The centers and the training units now to be found in the Personnel Division of Training and Development involve something better than one hundred and fifty designers and instructors. The precise number at any one time is hard to estimate since temporary people are constantly being recruited from line operations to help out with specific demands. The background and experience of people in these roles offers almost as much variation as it does with chief administrators, though there is a little more consistency in specific training to be found, largely as a result of the activities of the new centralized unit. Almost without exception instructors and designers are found within the company and have come from a variety of line positions. Tenure in the position varies from three years, the preferred time for the Belleville Center, to unlimited number of years in Customer Services Training, to eighteen months in Commercial Sales. The move to self-paced instruction on a large scale has contributed to the increase in course designers as distinct from presenters. The distinction is an interesting one, resembling to some extent the distinction between curriculum specialists and classroom teachers in the formal school system. However, the varied nature of the separate constituencies and the close link between their natures and their training needs, felt intensely by those engaged in presentation, provides some extra complications in this setting. In one case, one administrator believes that all instructional staff should be engaged in both presentation and design, and manages his staff that way. In another, the administrator feels that the distinction works very well, with that administrator playing an essential role between the practical day to day demands of the line operation and the theoretical interest of the designers.

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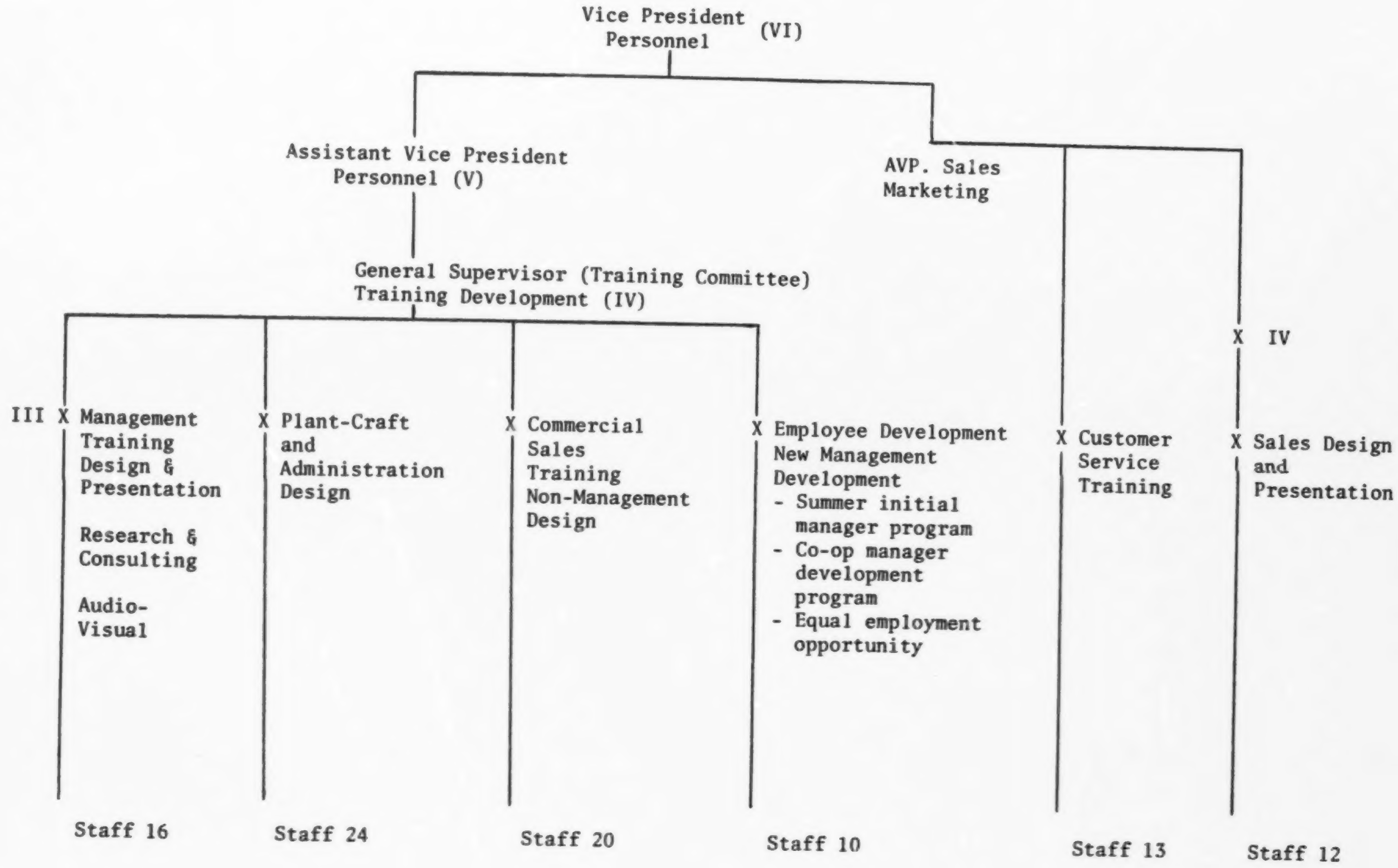
Increasingly all instructional personnel are getting common basic training, with the designer following a program of pre-design analysis supplied by the outside firm of Praxis, and presentation people getting a common program provided by the Personnel Training unit. However, needs vary so widely, for example, the counselling of new managers demanded by the Employee Development unit, as distinct from the coaching demanded by self-paced instruction in Plant or Outside Plant clerical training, that a good deal of additional development is provided by the particular unit. There is a high degree of concern for instructor development shown by all the administrators, perhaps as a reflection on their own experience in finding themselves in those roles. One unit allows 20% of the instructor's time for his own development. Much of this arises from planned discussion and evaluation sessions among groups of instructors, some from planned attendance at programs offered within the Company, sometimes by Montreal Headquarters, and programs available from other agencies. Few instructors have had any formal training in instruction outside the Company, though some recent appointments have been of that order. Almost all, at least until the move towards centralization, have been and are on a flow-through basis, and presumably see their future in other areas of the Company's activities. As with the administrators it is not clear what this experience will mean in their careers within the Company. The administrators are constantly in search of new instructors, and some reported increasing difficulty in finding them. Recommendations come from various line sources in the Company, but no administrator has to accept any particular instructor. Regardless of the time involved, instructors are guaranteed a position in their source department, though not a specific job.

ONTARIO REGION

Vice President Operations

	TRAFFIC	COMMERCIAL	REGIONAL PERFORMANCE ENGINEERING	TERMINAL DEVELOPMENT	PLANT
	Maintenance of Communications Lines: Operators: Customer Equipment				
LEVEL III	X 1. Operators & Supervisors Design & Presentation 2. Facilities Engineers Design & Presentation 3. Business Services	X Service Representatives Presentation Self-paced Commercial Management I & II Level Design & Presentation	X Engineering New Products Design & Presentation	X Engineering Clerical Training Presentation (Outside plant) Metric Conversion	X Craft and Administration Presentation
	International students Other Canadian Companies		International students		
	Belleville Center - 5 Inst. Toronto Center - 4 classrooms	Centers - Toronto (3) Ottawa (1)	Belleville Center Administration		Centers - Ottawa Toronto (4) Hamilton
	Staff 24	Staff 42	Staff 28	Staff 6	Staff 57


Vice President Personnel (VI)
Assistant Vice President Personnel (V)
AVP. Sales Marketing
General Supervisor (Training Committee) Training Development (IV)
X IV
III X Management Training Design & Presentation
Research & Consulting
Audio-Visual
X Plant-Craft and Administration Design
X Commercial Sales Training Non-Management Design
X Employee Development New Management Development
- Summer initial manager program
- Co-op manager development program
- Equal employment opportunity
X Customer Service Training
X Sales Design and Presentation
Staff 16
Staff 24
Staff 20
Staff 10
Staff 13
Staff 12

4. RECRUITMENT OF STUDENTS

This section should, perhaps, begin with the point that within the Company programs the word "student" is rarely, if ever, used. In most cases the terms "trainee" and "training center" are preferred by those running the system on the grounds that the employee prefers them as well. There seems no other significance than the exchange of terminology, since the programs when examined do not lead to easy distinctions between "training" and "education" and the bias of the investigators is largely that the two are to a large degree indistinguishable anyway. It does not seem possible to conduct "training" without educating to some degree, nor to educate without engaging in training.

After an examination of curriculum and its development, and the description of the instructional facilities, one arrives at the body of "trainees", or of people who are identified by themselves or others as "trainees" at any particular time. The figures used to obtain a rough estimate of the number of such individuals are rough averages of numbers of participants during the years 1975 and 1976.

How does a particular person become a trainee in any one or more of the wide range of instructional programs provided in the course of a year by the company? Who decides that training is the activity the person should be engaged in at that particular time as distinct from all the other things he or she might be doing in pursuing the interest of the company? Who decides when the training shall be undertaken, and what sort of training it should be? How are the finite resources available for training allocated to this person rather than that one, or to this number rather than a smaller or greater one? What's the range of numbers involved in any one year in a Company of this size?

These questions involve a range of individuals, decisions, and organizational relationships that are impossible to specify in their entirety. The Company, in general, from the top down supports the investment in training resources as instrumental in meeting the Company's goals. The specialization of the Company's interests, techniques, and to some degree procedures, has served to promote the development of such resources within the Company, as well as a moderate use of resource to be purchased outside the Company. From this flows the existence of a wide range of instructional facilities and the participation of employees as trainees in those facilities. How they get there is a result of a highly complex system of influences and relationships, some of which can be clearly described and some of which can only be guessed at.

In terms of decisions taken at various levels and by various individuals, we can describe the system of motiviation for participation as somewhere between the compulsory child-centered school system, where everyone of the designated group is required to participate by law, and the relatively open post-secondary system, where despite the influence of degrees and various other sorts of certification, individuals have relative freedom to choose. For the employee of the Company, the stated or perceived opinions and wishes of his immediate superior or superiors, plus the perceived relationship between participation in one program or another and advancement within the Company, provides a system with some powerful persuasions, if not compulsions, some obvious rationality, and a relatively simple choice of alternatives. For the new manager anywhere in the Company, and for the new Service Representative, to mention two examples, there is no choice. Both are required to follow prescribed and systematic training programs if they are to remain in the Company. To avoid a misimpression regarding the function of the compulsion to participate, one might point out that these programs are conceived and provided as essential assistance to such individuals, without which they would not be able to perform the tasks assigned to them, a condition that might also lead to termination of employment. For other participants the choice may be a little wider and may be modified by circumstances affecting timing, duration, and particular direction, but the evidence is of a high rate of participation. By and large, the question is not of compelling people to take part in the various training opportunities, but of balancing content, instructional effectiveness, and timing of participation so that they contribute to the best interest of the Company.

We have commented at some length in other sections on the present program of centralizing the training activities in a distinct department, and removing both design and presentation from the operating departments or "families". It may be that the balanced flow of recruitment of students, the timing of their participation, and to an equal extent as we will observe later, the effective development of evaluation will be most directly and subtly affected by the centralization. Recruitment depends upon the existence of training opportunities that line supervisors and the individual trainees believe will help them do their jobs better. In a large "company" the balance sheet probably cannot be as closely related to the immediate effectiveness of any particular training plan as the mythology current in non-educational agencies suggests, but it does influence such decisions, and more so with respect to internal accounting practices of time and productivity. This appears to vary from Department to Department. While none of the training units is on a cost recovery basis, nevertheless they must be constantly "selling" the value of training and the value of particular training to the line supervisors all the time. In general the arguments within the Company appear to be more likely to be focussed on particular training designs and their effectiveness rather than on the value of the training itself, though there is one example in recent years of the closing of an entire training operation for a short period for reasons of economy.

Training units and programs within them, with few exceptions, are organized on a departmental or "family" basis. A major exception would be the new manager program which is Company wide and the Management Training Center for level one, two and three managers.

In the case of the "family" based centers and programs there is, as a first basis of recruiting, a community of interest and its associated familiar language and/or terminology. Secondly, in most cases there are intersecting administrative and communications systems, some of them almost automatic and taken for granted, some of them conscious and systematic. For example, in Engineering, with its center at Belleville, a complex network of curriculum planning and course design committees provides an effective recruiting network for trainees. In some cases the target population is pre-identified and presold, since the course is a response to the prior identification of their needs. For every course prepared, there is a waiting body of trainees. Over a longer period of time, as the population who might need the course expands, and new information is needed about courses where everything has changed but the title, a more formal and systematic information system is maintained. The entire curriculum is sent out to all supervisors in Engineering twice a year, while more detailed information about specific courses is sent to them four times a year. The fact that the Center also provides a constant counselling and information service regarding training opportunities for individuals in Engineering suggests a relationship of a very positive nature. On the other hand in this case at least, there appears to be a reasonably balance between demand and resources; to have much greater demand than one can accomodate can be as destructive as too little; since while the Center cannot always accomodate an individual at a particular time, he or she is rarely kept waiting longer than a year.

The length of time of each course is, of course, a function of the design of that specific course.

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Other units maintain similar recruiting systems, and have to one degree or another, the same functional relationships with specific line constituencies. As already mentioned, some programs are compulsory. In the case of new Plant employees who will be driving Company vehicles, new Service Representatives, new Managers, and a variety of other technicians, particularly operators, participation in the program is a condition of employment. In some cases it takes place prior to the introduction of the individual into the operations, in others there is a preference for the individual to have had on the job experience before training begins.

In Traffic, Plant, and Outside Plant, where there is a high use of self-paced modular training methods, the recruiting problems are of a somewhat different order, which in turn alter the implications of the supervisors' decisions to send someone for training. In Outside Plant, and some others, the decentralization that modular self-paced programming allows, means that training can take place for short periods of time at the job location. With respect to Traffic and Plant programs of this nature, it is a matter of arranging for the kinds of continuous intake one finds in some "Manpower Programs" associated with Community Colleges rather than having to arrange for a group of people to be available at a specific time for a specific length of time. So long as the usefulness of the skills taught have a reasonable lengevity, and the group is large enough, there are obvious economies to be found in the use of such instructional techniques.

In most cases, careful contact is maintained with the supervisors who are in a position to decide whether the employee should proceed to training or not. In the case of Sales for example, a regular series of short meetings is held with Level III supervisors in order to explain and presumably justify the nature of the program designed for the Level II supervisors under their supervision. Following that step, Level II supervisors are solicited in writing with the schedule of courses and times of attendance provided. Such a process ensures not only that the superior knows of the program sufficiently to incline him to recommend that someone attend it, but also that he knows what the intended outcome is with respect to the greater efficiency of his own section or department.

Company-wide programs such as are to be found in Management Training in the newly centralized unit, and in Employee Development, involve slightly different procedures of recruitment. In the case of the New Manager Program, managed by Employee Development, participation is automatic. The unit is notified the moment the individual is employed as a new manager, and from that follows an extensive

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round of consultations with the immediate Supervisor, consultations with the new Manager, and workshops. All of these are managed by the staff of Employee Development. With respect to the Management Training Center, which provides programs for Level I, II and III Managers, participation arises out of the Job Performance Review in which one engages each year. The Center distributes quarterly to all Managers, a list of available courses, and these are considered in relation to the individual's performance. In this case a balance has been difficult to maintain and there is a substantial waiting list.

An assessment of actual numbers in the period under discussion must be treated with some caution. The numbers reported represent single "registrations" for training endeavour that might take half a day, as in the case of training operators for customers of the company, or a couple of days, as in the case for Company vehicle drivers, through one or two weeks to a nine week course provided in Belleville. They may also represent the same person who took more than one course or program during the single time period. They are reflections of individuals who, in the employment of the Company within a two year period, undertook some kind of training. Nevertheless, within those limits, the fact that somewhere in the order of 19,000 individuals engaged in a trainee role in that time period in a Company of this size seems impressive. It is likely that the number is underestimated since it does not include all of those who engaged in some form of decentralized self-paced instruction, nor does it include those who participated in a program outside the Company but sponsored by it. The Belleville Center alone represents 4,000 registrants, Plant - 6,000, while the Sales program for Level II Managers had 20 in the same period.

With the exception of the on site Self-paced programs available from Traffic and Outside Plant, all of these programs involve an employee being in a specific place, usually either in Ottawa or Toronto, at a specific time, for a specific period. Costs are provided for by the employing unit which also, presumably, covers for the time of absence.

About ten percent of the registrants are from other provinces or from other countries. A special division of the Company merchandises the training programs abroad, and actively recruits students. In some cases the Company provides training programs in other provinces

5. EVALUATION

Understandably there is no subject that gets as much discussion among the training personnel in the Company as does evaluation and the problems associated with it. It is understandable because a glance at any materials related to discussions of the public education system, or for that matter any educational system, indicates the predominance of discussions, often debates, over evaluation.

In general, there is considerable dissatisfaction expressed over activity of this kind. Most of it relates to the stubbornness of the problems associated with doing evaluation of such complex and amorphous activities, the results of which will satisfy all participants.

Nevertheless, as is true of any reasonably intelligently directed activity, a great deal of evaluation takes place, the arguments turn over the precision and validity with which it is carried out. It is necessary therefore to distinguish between various levels of evaluation, or levels of what is being evaluated.

At the top of these decisions is the decision to engage self-consciously and deliberately in training of any kind. The alternative would be to place all confidence in the hiring and firing process, and the skills of selection involved. If a person did not learn to carry out a job merely by doing it, with conventional administrative support, then that person would be replaced by a person who could do the job. Such practices remain sometimes as part of the mythology of private enterprise, and persist in small low technology new enterprises. But in older, high technology, and generally more humane enterprises, the intervention of self-conscious training exists, sometimes informally, but more often with the deliberation and control that is represented in the Company. Each of the operating training units, and indeed the move to centralization, indicated a steady increase in support for training activities on the part of the Company leadership as a whole. Such support appears often to be reflected as a pervading attitude, as much as to be embodied in specific decisions. The temporary suspension of the Management Training Program and Center several years ago suggests that some forms of training remain, in the eyes of some senior officials, expendable when financial resources become tight, a condition that has been endemic with respect to training within industry throughout most of its development. For whatever reasons, the Company has clearly decided to support an extensive range of training, and indeed to develop some aspects of it as a direct segment of income generation, as is represented by the organized endeavour to sell such training to other companies in Canada and abroad. Another way to state this is that in evaluating the entire operations of the Company it has been decided that training is a necessary part of Company activities.

The next decision relates to whom will be trained, and presumably when. The degree of specialization of the Company's activities, and its size, dictate responses to alternatives in this area. Such programs as New Manager Training, Service Representative Training, Vehicle Operator Training, and other programs associated with entry to employment in the Company indicate the decision that the environment is sufficiently complex and specialized that the ability to cope with it successfully could not be acquired outside of the Company, nor would it be efficient to allow it to be acquired simply by performing one task or another. The highly specialized programs to be found in Engineering, Computer Technology, Traffic, and, in particular, those represented by many of the Self-paced materials result from the growth of a specialized technology peculiar to the activities of the Company which could not or would not likely be learned elsewhere. Thus one training unit supervisor reported that programs offered within the Company in a particular area were far more advanced than similar ones offered by an adjacent university. We might also add here that we suspect that the Company has developed experience in the presentation of some materials, particularly in the area of Self-paced instruction, that far outstrip comparable experience to be found in the public educational system. There are, therefore, general decisions about whom to train and when, that seem to arise from the nature of the Company's operation. In addition, there are the more frequent and more debated decisions about other groups and individuals where the need for training is perceived to arrive from the injection of new technology, or the launching of new activities associated with the general enterprise. With respect to the latter, the Company strategy frequently appears to be to create a new corporate unit with its own indigenous training resources.

The next immediate decision, one that is clearly intertwined with the former, is that of "make or buy". Shall the enterprise turn to the increasingly variegated and complex system of the provision of training resources, provided either by agencies of the public educational system, by commercial agencies, consulting and otherwise. with such programs to sell, or by other large companies with similar problems and earlier solutions, or shall the Company develop its own internal resources, drawing where it wishes on outside resources, most of which may be in

/5.3

the form of hiring experience in training, but concentrating on the development of its own design and presentation facilities? Obviously the more exclusive and specialized the technology, the more likely the decision is to be in favour of the latter choice. Again size will have some effect, but clearly specialization is the determining factor. The result tends to be a mixture of internal development and the purchase of external materials and methods as they suit the solution to a particular problem. The Research and Evaluation Group's decision to purchase "letter writing courses" is an example of an estimate that it would be cheaper to buy a course that was generally relevant than to prepare one of their own. The dependence of the entire training enterprise on courses provided by PRAXIS as a basis of evaluating the need for training is another example. In this case, as in the case of the Blake-Mouton Grid Training Scheme, a kind of franchise arrangement has been worked out. On the other hand, we need only acknowledge the existence of the nearly twenty training centers, and the hundred or more course designers, to point out that the largest effort is concentrated on internal generation.

The program of "tuition reimbursement" for employees who wish to pursue formal programs at educational institutions indicates another area of individual development where the Company has decided to "purchase" rather than make. In less technical areas such as management training and employee development, fairly wide use is made of both externally provided programs and short term opportunities offered by other agencies in other locations.

The "buy" aspect of the program provides another form of evaluation. As the number of commercial providers of training materials and events, of which, of course, the Company, for other similar companies, is itself one, has increased the problem of choosing among the legion of solicitations becomes a complex one. Nearly every unit administrator indicated a constant flow of highly charged and stimulating offerings provided by the external society. Evaluation of these is difficult and continuous, and in general is carried out by the individual supervisor who may attend several a year for evaluation purposes, or consult a colleague in another company. Increasingly the Company is trying to provide support for such evaluative activities by asking everyone who attends to provide a brief evaluation which is then lodged with an officer of the centralized training unit, who is constantly available for advice. In the more specialized operations such as Traffic or Engineering, presumably such formal and informal evaluation takes place all the time. In Employee Development, and in Engineering, for example, substantial directories of offerings available for specific purposes are compiled and kept available. This has become

/5.4

both so formidable and apparently useful a task that some thought is being given to seeing if the cost of preparing such directories might be shared with other similarly interested enterprises.

The final decision in this flow, then, is that of what to make and how to deliver. It is here that the principal experimentation and arguments over evaluation mostly take place. In this area evaluation presents itself in two different forms; evaluation of courses and evaluation of individuals. In the first instance, which is by far the most active area of concern, the course and presentation is regarded as the manipulable variable. If groups of individuals do not improve their performance as a result of being exposed to the program then the program is determined to be faulty and a new program designed.

In the second instance, if an individual or several individuals do not improve their performance then it is their behaviour that is important, and they are either fired, sent to repeat the course, or exposed to other presumably more helpful instruction. The problems of obtaining sufficient and accurate information to implement in either of these directions are what preoccupy those concerned with evaluation.

The first factor that affects such a process is the decision which now affects an increasing amount of Company instruction to divide instructional personnel between those who design course material and those who present it. As we have reported elsewhere this is the practice in Traffic, Plant, Outside Plant, Sales, and elsewhere. In some cases Designers are in quite different organizational and physical locations than Presenters, though the former circumstance is in part a result of the gradual move to centralization. Information on the effectiveness of courses useful to Designers, obviously must come largely from presenters, or as in the case of the Self-paced materials from those engaged in distributing and administering them. The success with which this information is communicated across these groups varies considerably throughout the instructional units, for reasons that also vary. Where such communications are successful, frequent meetings are held between Designers and Presenters, and the area of specialized information being conveyed is well defined as is the group to which it is conveyed. Where there are difficulties, those circumstances are not present, and there are problems of size and distance in addition. Recently, in Sales, a group of Designers has been transferred to the central training unit without apparent serious disruption. The major exception to this division appears to be in Engineering, where it is believed and practiced that instruction can be successfully carried out only if the same people are engaged in both design and presentation. Whether this is a result of the experience and predilection of the chief Supervisor alone, or whether there are circumstances attached to that sort of training which justify such a decision, is difficult to determine until some comparisons are carried out.

Before turning to practices of course evaluation that are carried out, mostly at the presentation level, we should note major thrusts of program development carried out recently in the Company which reflect processes of evaluation both directly and indirectly. The Training and Research Group located in the new central unit has recently produced a major report on training needs for Level I and II Managers. The study was conducted by questionnaire which was administered to representatives of a systematic sample of managers. The conclusion taken from the abstract was, "the current Management Training curriculum appears to meet the needs of Managers". The key recommendation to improve the management courses was to make courses more practical and less theoretical "along with some requests for additional specialized courses of various kinds. The final request is a familiar enough refrain in this milieu.

The type of report involved is an example of the precise intended function for the Training and Research Group, a function difficult to perform entirely satisfactorily because of the volume of requests for evaluative assistance. The group also engaged in training need analysis that led to the purchasing of some commercially produced writing courses for Company employees, and in a different direction has been exploring the incidence of and reasons for individual failures in some programs. A similar study, with comparable systematic procedures, has been carried out by the Employee Development unit as a means of recommending a major change in the required program for new managers. Another study of equal significance was carried out several years ago by Sales Training. It is apparent that evaluative resources and practices are distributed fairly widely and unevenly across the training units. Obviously the bulk of information regarding the success of courses will be acquired by the presentation units. The Engineering Center has, in association with it, a Training Advisory Board made up of twelve representatives from both the staff and line organizations which meets three times a year and assesses the program. Information gathered by the Center staff from student questionnaires administered at the end of each course, and from frequent and regular staff conferences and individual evaluations is considered by this Board. We need also to recall the system of course development committees and procedures

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to be aware that a great deal of informal as well as formal evaluation is being passed along continuously. Ongoing courses are assessed regularly and the careful development system provides information of this nature. In the case of Plant, constant contact with the field, where the supervisors possess the final evaluative decision of whether to send a man for training or train him themselves provides a regular and informal system of constant evaluation. However, information of this sort is obviously difficult to convey effectively to the group of course designers.

In every case, direct evaluation is sought from trainees, usually right at the end of the course, and a month or two afterwards. Follow-up is pursued both with the individual trainees and in varying degrees with the immediate supervisor, though the emphasis seems to be in these cases on the effectiveness of the course as distinct from the ability of the trainee to profit from it.

In the case of those units, Traffic, Plant, Outside Plant, and Commercial Sales, where Self-paced methods are prominent, if not exclusive, various evaluative procedures are built into the modules themselves, as well as the frequent consulting with supervisors. In the case of Commercial Sales, where modules have been distributed for onsite use, every use of a module is reported and some follow-up occurs. Obviously, the variety of procedures is affected by situations, such as in Engineering, where it was reported that curriculum changes relatively slowly, as compared with Sales and others where changes are much more frequent. In fact the frequency of the changes was reported to be a major difficulty in using Self-paced material.

In Management Training, particularly in the programs for New Managers carried out by Employee Development, evaluation appears to be a more personal and individual affair. The wide range of consulting built into the New Manager program obviously contains a large amount of evaluation, or of information of evaluative material. Presumably it was this sort of information that lead to the extensive review of the program already reported. Presumably also, the Performance Reviews carried out for all Managers carries with it an implicit type of evaluation of the training program.

Indication of training provided for managers above level III was less apparent and consistent. It appears that some of that is provided by Headquarters, and some by the managers themselves in the sense of their choosing to attend certain

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events provided inside or outside the Company.

Evaluation of individual students is again understandably a different matter. Few, if any, of the training units reported carrying out such evaluation systematically or formally. Examinations have been eliminated from the Engineering program, though there is one course which does lead to a certificate, and a three week program in which the immediate supervisor of the individual is invited to participate in a series of presentations. There is a varying degree of contact between particular instruction units and the supervisors of trainees, but the overall impression is that it is up to the supervisor to judge whether the training was successful, and to decide in the case of a failure whether it was the program or the individual was was most at fault. Contact is carried out between instructional unit supervisors and field supervisors in special cases where some explanation is believed to be needed. Engineering is experimenting with a questionnaire follow-up with supervisors of trainees. In general, however, such evaluation is left to take place between the trainee and the immediate supervisor, who presumably was a major factor in the individual undertaking training in the first place. The system is an interesting example of the recent argument presented by the Commission on Post-Secondary Education in Ontario to the effect that evaluation should always be carried out by the user or employer of the skills rather than by the training institution. In the Company activities there is indication of increasing emphasis on encouraging and assisting individual trainees to be able to evaluate themselves.

In the New Manager program, individuals are fired or not continued as managers at the end of the program, but this decision is made by a committee of managers at a meeting which the representative of the Employee Development unit only occasionally attends.

While evaluation is obviously taking place continuously in this system as it is in any human enterprise, it is clear that it is possible to distinguish several different stages in the process, and more different steps. The continual assessment of programs exists against a background of other more far reaching evaluative decisions respecting training having been taken. The networks of information exchange related to the evaluation of programs are widespread and subtle. Obviously the decision to create a central unit is a result of such a decision, and presumably also a result of concern about the present ability of the Company to effecitvely evaluate its training program. As observed in an earlier section, the continuing

/5.8

implementation of that program of centralization will make major changes in all the existing systems of explicit and implicit gathering of information for the purposes of evaluation.

6. EXPENDITURES

The following chart provides some details of expenditures on training in a representative year. Tuition reimbursements are not included, and one can safely guess that a number of other items which are chargeable to training are omitted as well. The figure of twenty million dollars is probably a reasonable estimate.

We have no grounds for any evaluation of this figure. When we have completed studies of some other organizations, we may have such a basis, however such organizations are so different from one another that one suspects any comparison would be very risky indeed. One can onserve simply that what is represented here is the expenditure of another twenty million dollars on the education of some Canadian adults, and that it represents probably less than half of what is expended by this one Company.

ONTARIO REGION TRAINING COSTS - 1976

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	
Ontario Region Training Centres					
- Instructional Costs*	1,494,065	1,571,395	1,480,867	1,519,079	
- Trainee Salaries	762,866	1,013,882	652,838	486,869	
- Trainee Expenses	319,280	494,889	287,212	239,505	
Sub-Totals	2,576,211	3,080,166	2,420,917	2,245,453	
					10,322,747
Ontario Region Traffic Operator & Business Services					
- Salaries (Trainee & Instr. Staff)	306,326	394,997	258,393	229,212	
- Travel (" " ")	2,636	10,157	4,821	7,705	
- Other (Furniture, Equip. Rental Miscellaneous)	29,373	48,122	33,635	20,248	
Sub-Totals	338,335	453,276	296,849	257,165	
					1,345,625
Grand Totals	2,914,546	3,533,442	2,717,766	2,502,618	
					11,668,372

These costs reflect training done in Ontario Region ie: (1) it does not include cosys for Ontario Region employees who took courses from Q.R., C.C., or H.Q. (2) it does include trainee costs for Q.R., C.C., or H.Q. employees who took courses from Ontario Region.

* Instructional Costs include: Salaries, Travel, Miscellaneous, Furniture, Equipment, Rentals.

BELL CANADA RESEARCH PROJECT

APPENDIX 1

List of Interviews

Level IV

W.B. Edmunds	General Supervisor, Training & Development (in the Personnel Division, Ontario Region Administration)

Level III

A.D. Collins	Staff Supervisor - Training Development & Research: Management Training for Level I & II; Training Research & Consulting; Educational Assistance Plan (in part); Training of training staff
M.J. Briere	Staff Supervisor - Employee Development: New Manager & Summer Manager (Student) Training, (Job Planning & Review); Personnel Consulting; Equal Employment Opportunity Plan; Compilation of all in-company and out-of-company courses; plus Personnel functions not related to training
M.C.N. Rowe	Staff Supervisor - Training & Development: Course Design for Commercial non-management (Service Representatives, Business Representatives, Order Processors) and Sales
J. Brodie	Staff Supervisor - Administration of Training (Commercial): presentation of Self-paced Learning for Service Representatives and Leader-led management training for Level I and II Supervisors in four Centers in Toronto, one in Ottawa
W.R. Buckner	Staff Supervisor - Sales Support: Presentation of Training (including administration of a school)

/2

W.M. Draper	Staff Supervisor - Training & Development: Course Design for Plant (non-management technologies, crafts, clerical, etc. and plant management training for specific job tasks)
A.S. Miller	Staff Supervisor - Plant Training & Administration Planning: Presentation of Training in six schools (mainly in Toronto and Ottawa)
M.J. Dimmick	Staff Supervisor - Traffic Training: Course Design and Presentation for three groups: 1) operators, the instructors who train them, and their office managers; 2) Service Advisors who train the staff of customers with large systems; 3) Traffic Engineers who specify the qualities of equipment required
P.F. Turchin	District Business Service Manager: Presentation of Customer Service Training (staff of large users of Bell equipment) and the Service Advisors who train them; plus customer service functions other than training
P. Cant	Staff Engineer - Training: Director of the residential Training Center at Belleville; Course Design and Presentation for Engineers. The Center also provides Presentation space for Traffic and Data Communications.
D.C. Leitch	Staff Engineer - S.I. (Metric) Conversion: Outside Plant Clerical Training (Clerical support group for engineering); metric conversion is not a training function

Level II

S. Black	Outside Plant Clerical Training Design, Presentation and Evaluation; 'sells' to the Field, etc.
S. Fergus	Plant Training Analyst (Course Development); development of Documentation for Training (Training to use job-designed documentation, instead of training for the task); etc.

/3

W. Restive	Supervisor, Course Development, Management Training Research: conducted analysis of Training Needs of Level I and II Managers; Certified PRAXIS Trainer (Performance Analysis Workshops); management course design; etc.
M. Greenberg	Supervisor, Management Training Research and Evaluation: Psychologies (Behavioral Sciences); the Group identifies need and conducts research; has reactive consultative role; evaluates external courses for purchase; etc.
R. McDonald	Administration and Presentation of Management Training: instructs and manages the school, which presents a mix of outside packages and internally designed leader-led combinations; instructor training; etc.

In addition, all jobs in the Company are described in detail by the incumbents, and a random sampling of these 'Position Descriptions' for Level I Course Developers and Level I Instructors, and Level II Training Supervisors, were made available to the Project, and are attached. (See Appendix 1 - Attachment 2)

It should be noted that the Project did not include training in Data Communications, an independent group that controls its own training design and presentation (Ottawa, Toronto and Belleville), and is not included in the Company's training budget.

Bell
Canada

APPENDIX 1 - ATTACHMENT 1

1977 02 10

To: W.R. Buckner
Staff Supervisor Methods Training

RE: Studies in Education in Industry and Government and a Model of Information Exchange, O.I.S.E.

To encouarge more interaction between the academic community and the business community as well as establishing a vehicle for sharing experiences evolving from and revolving around the educational milieu, Bell Canada has been invited and has agreed to become the first in what will hopefully become a continuing series of case studies in education in industry and government. It is a co-operative venture involving the Department of Adult Education, the Ontario Institute for Studies in Education (O.I.S.E.) and our Personnel Department.

The specific purpose of the case study is to share with others who are working in a similar capacity information about our in-house system(s) of education. Subsequently, ". . . the project will produce the first draft of a questionnaire and research model with general application for training in industry in Canada." Some of the things they'll be enquiring about include the nature of the learning within each department, a verbal description of the facilities where this learning takes place, the method(s) of instruction and your major successes and disappointments vis-a-vis the learning function.

. . . 2

TELEPHONE PIONEERS OF AMERICA

MARCH IS MEMBERSHIP MONTH
MAPLE LEAF CHAPTER

W.R. Buckner

1977 02 10

Because your present position involves the training/learning function, someone associated with the Department of Adult Education, O.I.S.E. will be in touch with you shortly to arrange for an interview. We realize you're extremely busy, but at the same time we would be most grateful if you could find the time to interact with them.

If you would like more information regarding this project please do not hesitate to contact me at 599-4855. In the event of my absence, please contact R.E. Parducci at 599-4857. Ron is our liason with O.I.S.E. for this project.

Your co-operation is gratefully appreciated.

A.D. Collins
Staff Supervisor - Training Development and Research

pc Reg Herman, Department of Adult Education, O.I.S.E.

REP:mam

APPENDIX 1 -

ATTACHMENT 2

Revised May 20, 1975
RCVD 2 APR. 76

POSITION DESCRIPTION

BELL CANADA - MANAGEMENT

A

POSITION IDENTIFICATION

Job Title COURSE DEVELOPER Position No. E631

Level I Title Code 0260 Duties Code 4003 Status Code 0602 Organization Code E20-1171G

Dept. ~~Plant~~ PRSNL Region O.R. Area ______ Div. ______ District ______

Address 393 University Ave., Room 202

Supervisor's Title SUPERVISOR-COURSE DEVELOPMENT Date 31.3 76

Concurrence: Incumbent ______ Approved: Supervisor ______

C

POSITION SUMMARY

Give the important duties and responsibilities in brief form by order of importance.

THE COURSE DEVELOPER works under the supervision of the SUPERVISOR COURSE DEVELOPMENT.

A This is a specialist type job responsible for designing and developing technical and administrative program instruction or leader led training courses for craftsmen, clerks, and I and II Level Managers within the Ontario Region and Company Plant Family. Incumbent is responsible for all phases of the development of course material through data gathering, task analysis, course design including media selection, writing course material, designing job aids, testing and validating material, to production of material, throughout considering costs, learning behaviour and course objectives.

B Audits job performance problems: using a professional system approach investigates Plant job performance problems, analyses results, evaluates worth of alternative solutions to resolve the problem and substantiates recommended choice of action.

C Develops and implements follow-up evaluations for newly developed and on line courses and if necessary implements remedial action.

D

JOB DUTIES AND RESPONSIBILITIES

Record (in order of importance or the sequence of performance) the major tasks or functions which comprise the position. The material in "C" should help in the writing of this section. The attached sheets should be used to cover this item. If additional space is required please feel free to add sheets as required.

A. 70% Designs and develops technical and administrative program instruction or leader led training courses for Plant Craftsmen, clerks, and I and II Level Managers.

1) Plans and conducts job studies, designs and develops data gathering questionnaires, composes letters to elicit information, researches and interprets existing printed material, BSP's, V-Practices, service manuals, manufacturer's literature, etc., interviews managers, interviews job incumbents (if existing job) and observes execution of job tasks.

2) Analyses mass of job study data, decides which facets of the job should be included in the course. Classifies data according to major job tasks or subordinate tasks. Determines complexity and frequency of tasks. Assesses level of learning of population to be trained, entry level skills and any factor significant to accelerated or constraint to learning.

3) Plans course design, sequencing of course material, end of lesson and end of course objectives, mastery lesson tests and job completion measurement criteria. Determines instructional strategy and selects media, type of program instruction, audio, video, learning games, case studies, hardware, etc. Considers motivation and learning ability of trainees and costs of program in terms of development time, trainee time, administration time, cost of course material and hardware and maintenance of course material.

4) Writes training instruction to teach the concepts of the tasks to be learned, employs professional program instruction techniques, (linear, branching, adjunct, auto-elucidation and mathetics) selecting and varying the method according to the subject matter. Develops instruction to flow naturally from simple to complex, expresses teaching points clearly and concisely in terms realistic and relevant to trainee and in a style that will sustain interest and motivation of trainee. Writes precise, explicit lesson objectives and lesson tests that will measure achievement. To illustrate or emphasize teaching points, develops case studies, learning games, cartoons etc., decides on photographs and arranges for photography. Writes audio script.

D. JOB DUTIES AND RESPONSIBILITIES (Con't)

5) Designs and develops Job Aids. (Analysis charts, graphs, step by step procedures etc.)

6) Confers with subject matter experts to verify accuracy of technical data.

7) Specifies training aid construction, hardware etc. required for trainees at Plant Training School.

8) Tests course material on an individual and a group basis to validate materials. Analyses results and revises as required.

9) Writes guide for COURSE ADMINISTRATOR detailing pre course, during course and post course administrative tasks and responsibilities, includes course outline, trainee prerequisites, course duration etc.

10) Develops questionnaires as a follow-up evaluation.

11) Arranges for and ensures suitable quality of drafting, typing, photography and printing of all course material.

12) Develops leader led non management and management Plant Training courses anticipating and averting problems which may be encountered by TRAINING INSTRUCTOR.

13) Updates courses as hardware, technical or administrative procedures change; applies assiduous attention to detail to ensure completeness of revisions and continued conformity with original design concept.

B. Audits Job performance problems.
20%

1) Investigates job performance problems through in-depth interviewing and observing job incumbents; interviews managers, and personnel responsible for input or output if related to the fact finding process.

2) Analyses results using a complex professional systems process to determine if deficiencies were in execution of tasks or job knowledge; determines cause of deficiencies such as lack of feedback, training need, outside task interference, etc.

3) Determines alternative solutions to problems. (training, job aids, re-organization, feedback system, etc.)

4) Develops a cost/worth analysis of solutions.

5) Writes report summarizing investigation results and substantiating recommended course of action.

6) Make oral presentations to higher level management explaining and supporting recommended solutions to problems.

C. Develops and conducts follow-up course evaluation.

10% 1) Develops a detailed follow-up plan for newly developed and on line courses specifying procedures and information that will be collected to determine course success or deficiencies.

2) Implements evaluation plan, performs job observations, interviews with trainee graduates and their managers, and prepares and collects data gathering questionnaires.

3) Evaluates data, measures quality and any deviations of performance from standards; determines appropriateness of course objectives and that course design and sequence are effective.

4) Determines and recommends remedial action if necessary to correct any deficiencies.

APPENDIX 1 - ATTACHMENT 2

APPENDIX 1 - ATTACHMENT 2

POSITION DESCRIPTION QUESTIONNAIRE

BELL CANADA - MANAGEMENT

A. POSITION IDENTIFICATION

Job Title Instructor **Position No.** 8037

Level I **Title Code** 0393 **Status Code** 0802 **Evaluation Code** ________

Dept. Plant **Region** Western **Area** ________ **Div.** ________ **District** ______

Address 1399 Bathurst Street, Toronto

Supervisor's Title Manager - Training **Date** January 24, 1974

Concurrence: Incumbent ________________ **Supervisor** ________________

Analysis By ________________________ **REF: (Similar Jobs) #** ____________

B. POSITION SUMMARY

Give the important duties and responsibilities in brief form by order of importance.

The Instructor works under the supervision of the Manager-Training: schedules and presents job related Exchange technical training (approx 12,000 trainee hours per year) for craft and management personnel of Toronto, Western and Central Areas; in addition presents similiar training for Eastern Region, C.C. & N.S., Service Agreement, Bell System, Independent and other companies personnel as requested; evaluates and implements changes with respect to training material, methods and facilities; provides continuing liason with District management personnel in the assessment of their candidates' training performance; develops special training packages and related methods and facilities to resolve specific field training problems; performs miscellaneous related duties; performs other duties as assigned.

Position No. ________

APPENDIX 1 - ATTACHMENT 2

Job Duties and Responsibilities

65% A. Scheduling and Presentation of Job Related Training

1. Plans, schedules and presents on a continuing basis, job related technical training courses in SxS, #5 XBar, #1 E.S.S., Power Plants, Carrier Systems and Basic and Advanced Transmission.

2. Introduces trainee to self-paced type training; assigns study carrel. Verifies experience information on Application for Training Form 1703 with trainee.

3. Verifies results of pre and post test on each module of course; if results are unsatisfactory, questions trainee verbally to determine areas of doubt; redirects trainee for further study.

4. Verifies results of paper work assignments; checks for trainee understanding of equipment feature covered; modifies answers which will be accepted when trainee justifies his procedures.

5. Verifies results of manual work operations; determines if accepted procedures were used.

6. Checks results of "hands-on" exercises; questions trainee to find depth of understanding; clears up any point which may not be understood by trainee.

7. Establishes proper testing procedures so that Company and Customer goals may be met.

8. Promotes safety in all work operations from employee, Company and Customer points of view.

9. Prepares work schedule on equipment so that trainee is not slowed down in his learning environment.

10. Assists trainee with equipment or procedure problems, which develop during exercises, that are not covered on course lay-out.

11. Monitors, on an ongoing basis, to ensure that trainee is applying himself fully to the course.

12. Instructs group led courses in a standard 4 step format resulting in lesson and course objectives being met.

13. Administers practical work assignments and written tests to students, on group led courses, evaluates answers and corrects errors through reinforcement instruction.

14. Exercises direct supervision and administrative responsibilites over trainees during their course attendance in the Plant Training Centre and/or field training location.

15% B. Evaluates, Adapts and Implements Changes to Training Courses

1. Evaluates, adapts and implements Bell Fair Share Courses which have been developed to critically imposed standards of quality. Integrates Bell Canada standards and methods, plans and develops training aids, facilities and materials, participates in field follow-up and makes recommendations to Bell System of required changes.

2. Based upon own training experiences, input from H.Q., B.N.R. & Regional Staff groups and new or revised practices, implements changes to course content as required and/or initiates recommendations to the Course Development group for the development of new courses or revision to existing courses.

3. Provides advice and assistance as a Subject Matter Expert (S.M.E.) to the Western Region Plant Course Development group, through review and recommendations, in the evaluation, adaptation and implementation of Bell System Fair Share courses, new instrumentalities and special customized training packages.

4. Provides S.M.E. assistance to the Course Development group, upon request, for course writing, updating and major modifications of existing training material.

10% C. Provides Liason with District Line Management

1. Advises field supervision of trainees' progress if it falls outside the areas considered as normal.

2. Advises field supervision of new course offerings designed to meet specific training needs.

3. Assists field supervision in planning training programs for their personnel by suggesting courses, and/or specific modules from a course, which will meet a specific trainee's need.

4. Schedules trainees to meet unusual field demands for training, e.g., cutovers, work load, new instrumentalities and/or procedures.

5% D. "Special" Course Offerings

1. Receives request from field for special training course.
2. Designs course, develops training aids, hand-outs, work assignments, etc.
3. Presents course in a training centre environment and/or in a field location to meet field requirements.

5% E. Performs Miscellaneous Related Duties

1. Answers questions from the field regarding technical equipment problems.
2. Conducts mini-tours of equipment and training facilities for line personnel and other department personnel.
3. Repairs work material, books, C.D.'s, S.D.'s, etc., as they deteriorate from use.
4. Clears troubles which develop on equipment which the trainees cannot clear.
5. Makes minor repairs to test equipment and recalibrate when necessary.
6. Maintains miscellaneous supply levels so that course progress of trainees is not impeded.

Position No. ________

APPENDIX 1 - ATTACHMENT 2

D.

JOB SPECIFICATIONS

Please answer the following questions regarding your job. If the question does not apply to your position, mark DNA. Use additional sheets if necessary.

A. BACKGROUND

1. If the knowledge of specific subject areas (such as engineering, drafting, statistical, bookkeeping, programming, etc.) are required to perform your job, list these technical and academic areas. (Also specify specialized areas such as electronic switching equipment, etc.) Give specific examples where that knowledge is used in performing your job:

Electrical circuit reading, electrical theory, electronic theory, transistor theory, voice repeater theory, technical knowledge in all areas of SxS, X-Bar and E.S.S. switching systems. This knowledge is used in presenting some 12 different central office courses.

2. If the ability to perform your job requires previous experience on other jobs (in Bell Canada -- or an outside Company), describe the experience required and how it is used in your present job.

Instructor must have had field exposure, both as a craftsman and as a foreman, to all of the above functions in order to convey to the trainees the knowledge contained in various training courses.

B. ANALYSIS AND DECISIONS

1. Do you read and analyze written material (instructions, reports, statistical data, etc.)? If so, describe the nature of the material and how you analyze it.

Circuit descriptions, schematic drawings, B.S.P.'s, Engineering & Plant Instructions, P.A.P.'s.

This material is analysed in order to determine the impact on existing training material and the need for development and acquisition of additional material to effectively serve the needs of the trainees from the line organization.

APPENDIX 1 - ATTACHMENT 2

Position No. ________

2. Do you compose letters? If so, for what purpose?

Yes. Periodically information is forwarded to the field relating to the availability of existing and/or new course offerings. In addition, information is sent to the Course Development group outlining recommended course modifications.

3. Do you determine or write instructions or procedures? If so, for whom? Describe these instructions.

Yes. Course Development Group. Instructions are in the form of P.I. course material giving students directions to follow in performing training work operations.

4. Is a high degree of accuracy required in your job? Describe.

Yes. Students are taught general and detailed switching functions, circuitry, etc., and a correct understanding is essential. Students are taught to test and adjust intricate apparatus to close tolerance requirements. Information given in the training courses will be used in the field. If the information is not accurate, it will affect customer service and Company results.

5. Are you responsible for keeping records, and, if so, what type?

Yes. Course schedules, pre and post course test results, class sheets and trainee costs and activity input forms.

6. Do you handle confidential information? Describe type of information.

D.N.A.

7. **Do you compile or summarize data. Describe the type of data, where you receive or select it from, how you summarize it (add, apply percentages, etc.), and who receives the material from you?**

Yes. Pre - during and post test results. Data is recived from field and from trainees during course. Results percentages are computed and information is transmitted to supervisor and/or Course Development group as required.

8. **Are you responsible for cash or negotiable securities? If so, describe.**

Yes. Instructor's Advance Account when training duties require travelling to out-of-town locations.

C. ACCOUNTABILITY

1. **Reporting relationships**
   - a. **Number of subordinates reporting directly to you** 0
   - b. **Number of subordinates reporting to you through subordinate supervisors.** 0
   - c. **Total.** 0
   - d. **Number of employees, besides yourself, reporting directly to your supervisor** 10

2. **What are the most important end results that you hope to achieve on this job this year? What effect does your position have on these results?**

a) Meet the training requirements of the line forces within time frames required and budget parameters

b) Provide most effective training through the implementation of Bell System Fair Share courses and other up to date training designs.

This position, by effective administration of cost controls, scheduling of field request, can improve the technical expertise of line personnel.

It will contribute to the attainment of cost and service objectives of the line and staff organization.

APPENDIX 1 - ATTACHMENT 2

Position No. ________

3. **Describe other position in your section or group that perform job functions or have responsibilities similar to yours.**

Group **Title** **Name**

There are 28 Instructors that perform job functions and have responsibilities similiar to this position. Activities encompass C.C., I & R, Construction and Plant Management Training.

4. **Are you regularly required to meet time schedules (weekly, monthly) in performing your job? Yes** X **No** ____**. If so, please describe.**

All trainees going through courses in the P.T.C. are on a time schedule. As one trainee leaves a position, another trainee takes his place. The length of each man's schedule depends on the particular course and/or course modules he is taking.

5. **Who or what group receives output from the work you perform?**

a. **Other members of same group.**	Other Instructors in the P.T.C.
b. **Another group in same section.**	Instructors in the E.R. P.T.C.
c. **Another department.**	Regional Plant Engr'g, Traffic, Staff &(cvc
d. **Associated Companies.**	Independent & Serv Agreement Co Trng facilities
e. **Other.**	D.N.A.

6. **Name the sources of written (or oral) information, instructions and/or guidelines for performing your job. (Company practices, instructions, routines, etc.)**

a) P.A.P.

b) B.S.P. B.C.S.P. M.E.P. M.R.P.L.

c) Written communications and directives from HQ & Regional Staff

d) Supervisor (oral & written)

c) A.T. & T. Training Standards

f) Manufacturers manuals and instructions.

Position No. ____________

D. List below any comments or additional information which you think are important in the consideration of your job.

Presents formal training courses, designed to exacting training standards, which will effect improved performance by the trainees on the job. Target population includes personnel from the Western Region as well as Service Agreement, Independent and other companies and selected E.R. and Bell System personnel.

E. Please attach a copy of your organization chart. This chart should show as a minimum - your immediate supervisor - his organization - your position in the organization and your own complete organization.

APPENDIX 1 - ATTACHMENT 2

Revised May 20, 1975

[illegible] #39

POSITION DESCRIPTION

BELL CANADA - MANAGEMENT

Rec'd 76.10.18

A

POSITION IDENTIFICATION

Job Title SUPERVISOR - TRAINING (Outside Plant) Position No. 3965

Level II Title Code 8455 Duties Code 3003 Status Code 0226 215 Organization Code 82021110.60, 30

Dept. Reg. Perf. Region Ontario Area Ops. Stf. Div. ______ District ______

Address 11 Bay Bridge Road, Belleville, Ontario

Supervisor's Title STAFF ENGINEER - TRAINING Date 76.10.19

Concurrence:
Incumbent ____________ ______ Approved: Supervisor ____________ ______

C

POSITION SUMMARY

Give the important duties and responsibilities in brief form by order of importance.

The SUPERVISOR - TRAINING works under the supervision of the STAFF ENGINEER - TRAINING.

a) Prepares for and instructs Outside Plant Engineering training courses.

b) Determines the need for, and designs and modifies Outside Plant Engineering training courses.

c) Identifies practice and job aid deficiencies and corrects them or recommends their correction.

d) Evaluates training effectiveness and student performance, and provides feedback to students and their supervisors.

e) Performs miscellaneous related duties and other duties as assigned.

D

JOB DUTIES AND RESPONSIBILITIES

Record (in order of importance or the sequence of performance) the major tasks or functions which comprise the position. The material in "C" should help in the writing of this section. The attached sheets should be used to cover this item. If additional space is required please feel free to add sheets as required.

a) 50% PREPARES AND INSTRUCTS OUTSIDE PLANT ENGINEERING TRAINING COURSES.

1. Keeps informed and knowledgeable on technology changes & new operating methodologies affecting Outside Plant Engineering.

2. Studies practices and other documentation in anticipation of questions which arise, that are not covered in course material.

3. Completes case-work, exercises and tests, to become familiar with the amount of effort involved and the process. The trainees must follow to achieve optimum solutions to these assignments.
4. Organizes classroom set up and verifies the completeness and readiness of all course material.

5. Reviews leaders guide and visual aids immediately prior to actual instruction.

6. Orients trainees to the training centre.

7. Overviews course structure and objectives with trainees.

8. Critiques pre-course assignments with trainees.

9. Presents lessons from Leader's Guide.

10. Conducts classroom discussion and problem-solving sessions.

11. Stimulates student participation, interest, and learning by:

    - assigning exercises, problems and quizzes
    - directing questions to students
    - re-directing questions from one student to another
    - answering questions
    - coaching as necessary
    - relating material to "job-actual" situations, through hands-on exercises
    - tailoring presentation to the needs of the specific group he is teaching
    - encouraging students to table their job-related Outside Plant Engineering problems
    - explaining the theory behind various economic engineering tools used in the design of Outside Plant - eg. cable sizing tables and resistance design charts.
    - encouraging his development of a systems approach to his job.
    - instilling a judgemental and conceptual approach to the solution of job related problems, rather than providing a prescription of right & wrong answers.

Familiarizes and instructs students in the use of time sharing computer systems and the proper execution and interpretation of O.P. study programs, including EFRAP, LORES, LCAP, AIRPAP, TOPPS and LFRAP.

12. Assists the students in the evening with work assignments.

13. Manages case-group activities in a seminar/workshop environment among students with varying degrees of job knowledge and background experience.
    - role plays
    - maintains control
    - provides motivation as necessary

14. Encourages trainees, by example, to exercise good judgement in their decision making process.

15. Assesses the performance capabilities of students in the classroom and varies the amount of time and detail on specific topics, expecially judgemental areas, to meet the needs of specific students.

16. Researches training literature for ways to improve methods of presentation.

17. Attends workshops, seminars or courses on training to investigate the possibility of adopting new teaching concepts and techniques.

18. Presents Outside Plant Engineering courses to other companies, with or without service agreements.

19. Conducts student evaluation feedback at the conclusion of each course.

b) 35% DETERMINES THE NEED FOR, AND DESIGNS AND MODIFIES OUTSIDE PLANT ENGINEERING TRAINING COURSES.

(i) DETERMINES NEED FOR COURSES

1. Analyzes feedback from students and supervisors, to identify weaknesses, short comings, or outdated training material.

2. Keeps abreast of, and investigates new technologies and administrative routines in the fields of Outside Plant Engineering, Construction, and Plant, prior to their field introduction.

3. Makes field visits to keep up to date on operating procedures within each area.

4. Ascertains the job duties of Entry Level Persons in Outside Plant Engineering.

5. Investigates job problem areas through
    - field visits
    - interviews
    - participation at meetings
    - assessment of written feedback

6. Interviews Subject Matter Experts to learn how tasks should be performed.

7. Interviews users of Outside Plant Engineering output, to assist in determination of "deficient tasks".

8. Categorizes deficient tasks as either:
    i) deficiency in knowledge or skill
    ii) deficiency in the execution of the task

9. Produces the following types of recommendations in a Pre-project Report:
   - i) design self-paced or classroom training for knowledge deficiency tasks
   - ii) design job-aids for execution deficiency tasks
   - iii) modify existing, or produce new, standard practices
   - iv) modify existing training
   - v) no training required.

10. Assesses the cost of the recommendations in (9), relates it to the expected volume of trainees if a training course is under consideration, and judges the value, to the company, of these recommendations.

11. Prepares recommendation on whether or not to proceed with full scale training development.

12. Makes presentations of the above conclusions to Engineering Training Steering and Working Committees, and where training is assessed and agreed to as the appropriate course or action proceeds as follows:-

(ii) DESIGNS TRAINING COURSES

1. Decides on course content:
   - pre-requisite material
   - classroom subject matter
   - case-work subject matter

2. Familiarizes himself with subject matter by:
   - reading material
   - attending training courses when available elsewhere
   - discussions with Subject Matter Experts

3. Selects course development and presentation schedule to optimize the efficiency of the school operation, and his own time. Develops lesson plans and formulates teaching strategies.

4. Collects examples of job outputs and inputs from which he chooses appropriate case exercises and criterion test material.

5. Creates case exercises and criterion tests in conjunction with writing end of course objectives.

6. Assembles teaching points into a logical, smooth flowing leaders guide.

7. Writes Student Texts.

8. Designs visual aids - easels, 35mm slides, vugraphs, and hardware displays.

9. Documents course set-up instructions, material and handouts required, and classroom timetable.

10. Instructs Pilot Course.

11. Re-writes as necessary, following Pilot Course Critique.

12. Prepares course descriptions for publication in AX83 practice series.

(iii) MODIFIES TRAINING COURSES

1. Assesses course material to determine validity of course objectives, and subject matter, and to ensure it is current with respect to available documentation.

2. Assesses the worth of modifying or retaining training material with regard to the current demands and needs.

3. Investigates and initiates improvements to the training design and presentation process by:
   - reading current text books and periodicals
   - discussing ideas with supervisor and other instructor/developers
   - attending workshops and seminars on training design, critique and presentation

4. Re-writes leaders guide, student text, handouts exercises, and visual aids, to enhance the course and remove obsolete information.

5. Revises course descriptions in AX83 practice series.

c) 5% IDENTIFIES PRACTICE AND JOB AID DEFICIENCIES AND CORRECTS THEM OR RECOMMENDS THEIR CORRECTION

1. Critiques existing and draft practices in the process of designing training material and recommends changes to Regional Staff.

2. Where a practice is insufficient or not appropriate (e.g. revisions are not judged economic) and a technical "Job-aid" is more expedient, designs the necessary "Job-aids" and includes them in his training material.

3. Ascertains and includes interim instructions in training material, in anticipation of practice revisions.

d) 5% EVALUATES TRAINING EFFECTIVENESS AND STUDENT PERFORMANCE, AND PROVIDES FEEDBACK TO STUDENTS AND THEIR SUPERVISORS.

1. Evaluates effectiveness of training through:
   - observation of students' participation, interest and results
   - review of end of course and post course questionnaires

2. Provides advice to supervisors on the technical development of their subordinates and on the merits of specific training courses for individual trainees.

3. On the Basic Outside Plant course, evaluates the performance of each student through observation and assessment of results.

4. Discusses his evaluations with the trainees, and subsequently, with the trainees' supervisors.

e) 5% PERFORMS MISCELLANEOUS RELATED DUTIES AND OTHER DUTIES AS ASSIGNED

1. On occasion, represents the Staff Engineer - Training at meetings, and has approving authority in his absence.

2. Contributes articles to the ORETER (Technical Training Centre's quarterly publication to engineering groups).

3. Prepares reports and makes presentations at the Canadian Outside Plant Engineers Conferences, and District and Division Outside Plant Engineers meetings.

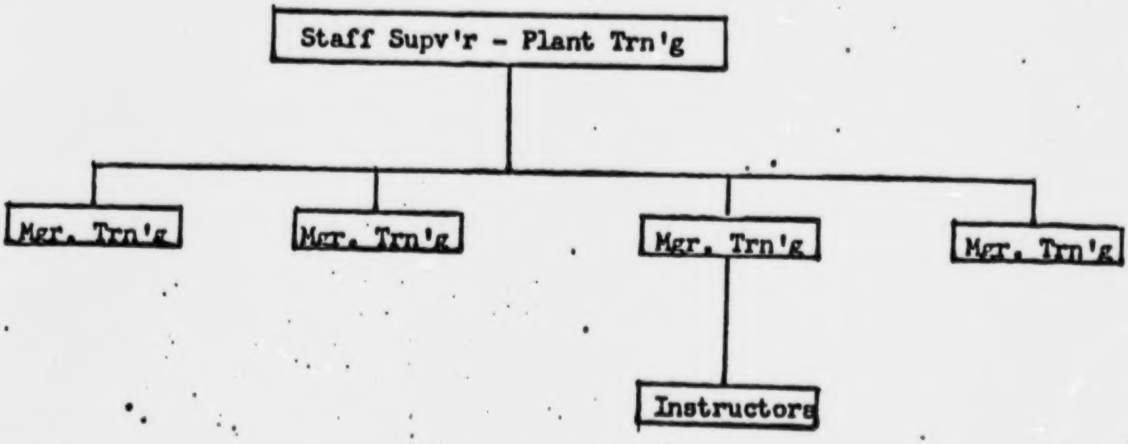
4. Advises on training matters at working and steering committee meetings.

5. Makes presentations and training recommendations to other telephone companies including those with which we have a service agreement.

6. Other duties as assigned.

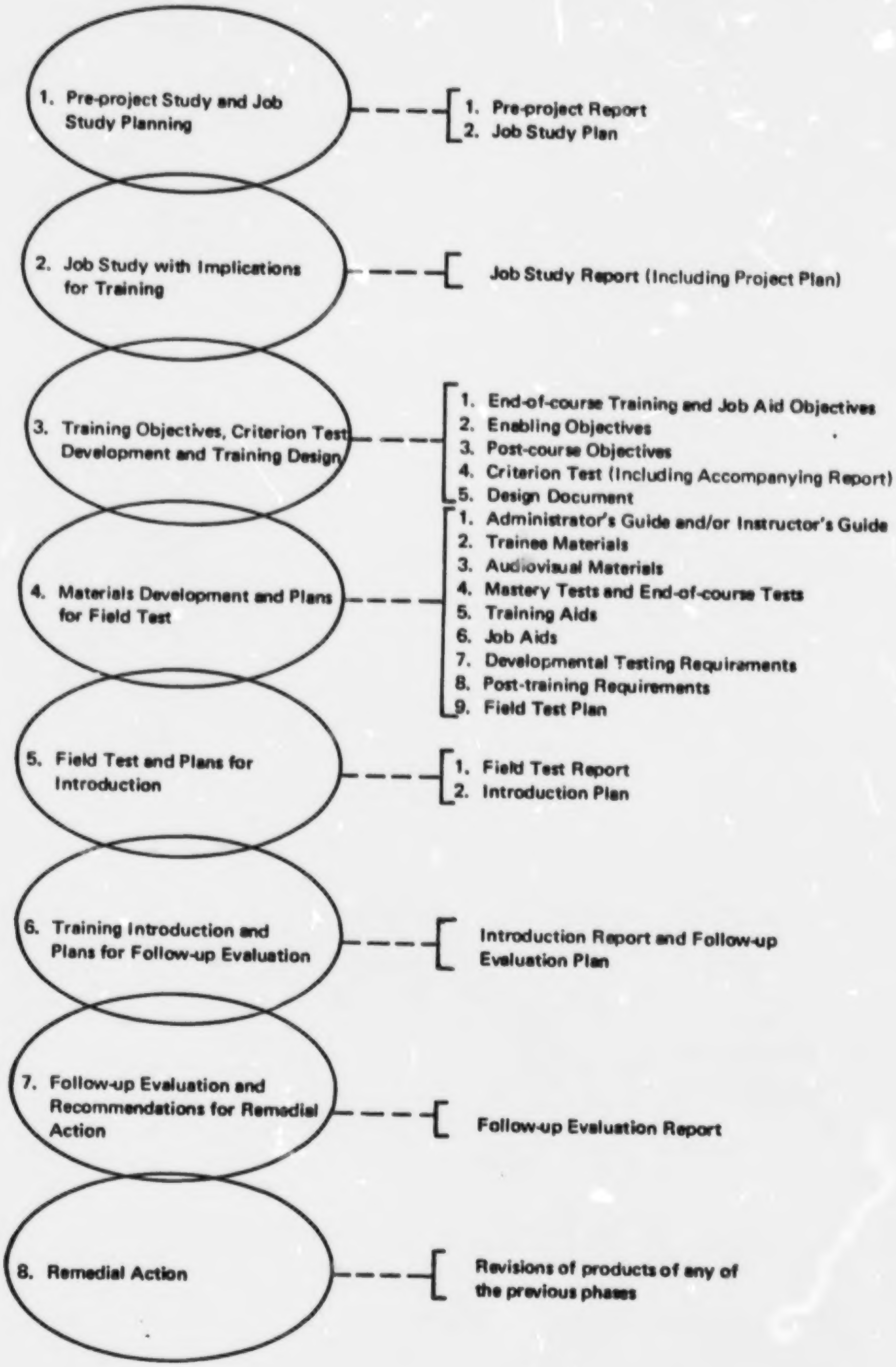
APPENDIX 1 -
ATTACHMENT 2

ORGANIZATION CHART


Staff Supv'r - Plant Trn'g
Mgr. Trn'g
Mgr. Trn'g
Mgr. Trn'g
Mgr. Trn'g
Instructors

APPENDIX 2

Training Development Standards



Phases	Products
1. Pre-project Study and Job Study Planning	1. Pre-project Report 2. Job Study Plan
2. Job Study with Implications for Training	Job Study Report (Including Project Plan)
3. Training Objectives, Criterion Test Development and Training Design	1. End-of-course Training and Job Aid Objectives 2. Enabling Objectives 3. Post-course Objectives 4. Criterion Test (Including Accompanying Report) 5. Design Document
4. Materials Development and Plans for Field Test	1. Administrator's Guide and/or Instructor's Guide 2. Trainee Materials 3. Audiovisual Materials 4. Mastery Tests and End-of-course Tests 5. Training Aids 6. Job Aids 7. Developmental Testing Requirements 8. Post-training Requirements 9. Field Test Plan
5. Field Test and Plans for Introduction	1. Field Test Report 2. Introduction Plan
6. Training Introduction and Plans for Follow-up Evaluation	Introduction Report and Follow-up Evaluation Plan
7. Follow-up Evaluation and Recommendations for Remedial Action	Follow-up Evaluation Report
8. Remedial Action	Revisions of products of any of the previous phases

READING LIST

PROJECT MANAGERS

a) Required Reading *

Managing the Instructional Programming Effort (R 2)
Strategies for Using Programmed Instruction (M 10)
Principles of Management (A 6)

b) Reference Material

Training Development Standards (A 3)

c) Recommended Reading

Sequencing of Instruction in Relation to Hierarchies of Competence (B 6)
Steps in Establishing Project Involving Outside Contacts and Outline for Reparing Specifications for a Training Project (A 5)
Validation Model Guidelines (B 1)
Programs: Development and Selection (R 1)

* in addition to the Analyst-Training reading list.

READING LIST

ANALYST - TRAINING

a) Required Reading

Designing Instruction - Friesen, Paul A. (F 1)

Preparing Instructional Objectives - Mager, Robert F. (M 1)

Analyzing Performance Problems - Mager, Robert F. and Pipe Peter (M 3)

Measuring Instructional Intent - Mager, Robert F. (M 6)

b) Reference Material

Training Development Standards - A.T.& T. (A 3)

Planning & Producing Audiovisual Materials - Kemp, Jerrold E. (K 2)

A Guide to Preparing Intrinsically Programmed Instructional Materials - Walther, R.E., U. S. Dept of Commerce

c) Recommended Reading

Criteria for Assessing Programmed Instructional Materials (A 1)
Learning Theory (B 3)
Programmed Learning: A Practicum (B 4)
An Introduction to Programmed Instruction (D 1)
Praxeonomy: A Specific Approach to Identifying Training Needs (G 3)
An Ounce of Analysis (H 1)
Developing Vocational Instruction (M 2)
Learning for Mastery - B.S. Bloom, Evaluation Comment Vol. 1, No. 2, May '68

d) Recommended for Experienced Analysts Only

Sequencing of Instruction in Relation to Hierarchies of Competence (B 6)
Task Analysis and Part vs Whole Learning Methods (C 1)
Aspects of Frame Construction (M 7)

JOB STUDY REPORT

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APPENDIX 60

Instructor Evaluation

TFTC-WR (9-

Instructor ______________________

Observer ______________________

Date ______________________

Area		Items	Rate	Remarks
Knowledge of Material	1	States objectives for course and each section		
	2	Makes minimal reference to Instructor Guide		
	3	Covers all points		
	4	Adapts presentation to class needs		
	5	Uses good, clear examples		
	6	Does not bluff		
	7	Meets objcctives for time and content		
	8			
Climate Setting	1	Makes students aware of high expectations		
	2	Speaks clearly, well paced, tone modulated		
	3	Keeps students actively involved		
	4	Does not create, or tolerate, distractions		
	5	Uses training aids well		
	6	Uses positive reinforcement and feedback		
	7	Demonstrates and creates confidence		
	8	Personal appearance and dress		
	9			
Awareness and Questioning	1	Interprets student needs		
	2	Is alert to student difficulties		
	3	Adjusts presentation speed to class needs		
	4	Does not trap, or embarrass students		
	5	Uses open questions		
	6	Is, and appears, patient		
	7			

INTRODUCTION TO
THE LEADER/CONSULTANT ROLE (COURSE 1499)

Selection of Conferees

This course is intended for all levels of Management people, engaged in Personnel and Training and Development Activities.

Except for conferees who have attended "Personnel Administration" (course 1481) this course is a pre-requisite for the the Leadership Skills Workshop" (course 1475) and the "Consultative Skills Workshop" (course 1480).

Purpose:

The course emphasizes the development of an understanding of the forces at work in groups, the development of sensitivity to the needs of individuals and groups, the development of skill in diagnosing human relations problems and the development of the ability to learn from actual experience.

Specifically the week will provide conferees with:

a) An opportunity for personal introspection and growth.

b) A fundamental understanding of the development, growth and functioning of groups.

c) Clarification of effective roles of the individual in the group whether leader or member.

d) An examination of the effects of climate on the functioning of the individual and of groups.

e) An introduction to, and skill practice in, what is commonly called "the helping relationship".

Description:

Presentations, demonstration and group discussions on role of training personnel and consultants, group behaviour theories, experiential learning, group member roles and feedback.

Sub-group research and presentation on the development, growth and functioning of groups which provides conferees with an opportunity to delve into subjects of particular interest to them.

Series of "Communication Laboratories" whereby conferees can increase their understanding of group dynamics and improve their communications and leadership skills by analysing the effects of their own and others' behaviour on the group.

Criteria for Entry:

No prerequisites are necessary but conditions outlined in "Selection of Conferees" should be respected.

Duration:

Five consecutive days. (From Sunday P.M. to Friday P.M.)

Location:

Suitable off-premises location on a live-in basis.

Language

This course is presently conducted in English.

Follow-up:

Full benefits will be derived then this course is followed by the "Leadership Skills Workshop" or the "Consultative Skills Workshop" whichever applies to the conferee's job function. In addition, on job opportunities should be provided for application of new learning.

Scheduling:

This course requires a minimum of 16 conferees and is presented 3 or 4 times per year based on level of demand.

Inquiries and registration can be made through the Staff Supervisor - Management Development Methods, H.Q. Organization Development or Regional Management Development Groups.

Consultative Skills Workshop (1480)

Selection of Conferee

This workshop has primarily been designed for Management people engaged in Personnel - Training and Development-activities, and who are likely to be called upon to fill a consultant's role with work teams or individual team managers.

Purpose

Attendance at the workshop will enable the conferees:

1) To identify the multiple roles of a consultant and understand the factors which contribute to the choice of each role.

2) To perceive through actual consulting experience, the difficulties associated with the consultative role in both "one on one" and "one on group" situations.

3) To develop skills in the diagnosis of group problems, the selection of appropriate remedial steps and the effective application of the latter.

4) To gain insight into the consultative process and identify areas of self-development as a person.

Description

Lectures and group discussions on: the need for consulting, the five roles of the consultant, influence in the consultative process, planned and unplanned change, basic notions in applying change, a problem solving approach for consultants, data collection tools and analysis.

Sub-group research and presentation on the following topics: The client system, the Consultant as a person, skills in the consultative process, ethics values and trends in consultation.

Sub-group tasks and other sessions serve as "Laboratories" where conferees experience the different consultant roles.

Daily "experience review" sessions in order to maximize learning for all conferees.

Language

This course is presently given in English.

Location

On a live-in basis.

Duration

Five consecutive days.

Criteria for Entry

Candidates for this workshop should have attended the Introduction to the Leader/Consultant Role course (1499). Familiarity with the problem solving model has also proved useful.

Follow-up

A structured two-day workshop may be held approximately 6 to 8 months following the original course.

The purpose of this continuation session is to provide participants with an opportunity to share experiences since the course, and jointly work on common problem areas.

The HQ Management Development group remains at the disposal of "graduated" consultants and will provide future assistance when required.

Scheduling

This course is presented 2 to 3 times per year, based on the level of demand.

Registration can be made through the Supervisor - Management Training and Development Methods, HQ Organization Development.

LEADERSHIP SKILLS WORKSHOP (1475)

Selection of Conferees:

This workshop is intended for:

a) Leaders of general and departmental management training courses and workshops.

b) Supervisors and coaches of trainers.

c) Administrators of training activities.

Candidates should be those whose job requires advanced instruction and experience in the leader role.

Purpose:

The course provides practical experience in leading management training courses and workshops.

Specifically the week will provide conferees with:

1 - An understanding and practice in the application of adult learning principles.

2 - Practice in analyzing prepared designs (e.g. determining key points, self-preparation required etc.)

3 - Exposure and practice in correct usage of various teaching methods.

4 - Appropriate responses to stage of group growth, group needs, group problems and group climate.

5 - Opportunities to appraise student reaction to training exercises.

6 - Opportunities to assess effects of leadership behaviour on the group.

Description:

Throughout the week, conferees are involved in practice sessions to provide them with practical experience in leading.

Completed training designs, (lesson plans) related resource material and training aids are available for their use. (Conferees are not involved in writing lesson plans).

The practice designs all deal with subjects which are important to the leader role.

Criteria for Entry:

Prior attendance at the "Introduction to the Leader/Consultant Role" (course 1499) and "Instructor Training" (course 1414) is required.

Exceptions are:

1 - If conferee has attended "Personnel Administration Course" then Course 1499 mentioned above is not required.

2 - If conferee has had some experience in leading management courses, then course 1414 would not necessarily be required.

Duration:

Five consecutive days. (From Sunday P.M. to Friday P.M.)

Location:

Suitable off-premises location on a live-in basis.

Language:

This course is presently conducted in English.

Follow-up:

Full benefits will be derived from this course if it is followed by direct involvement in the leader role or in coaching of subordinates who are in a leader role.

The H.Q. Organizational Development Group and Regional Management Development Groups remain at the disposal of graduate conferees for future consultative services in the different aspects of training and development.

Scheduling:

This course requires a minimum of 12 conferees and is presented 3 or 4 times a year based on level of demand.

Inquiries and registration can be made through the Staff Supervisor - Management Development Methods H.Q. Organization Development or Regional Management Development Groups.

[illegible]

COURSE TITLE: Course Development and Instructor Training (CDIT)

COURSE DESCRIPTION:

The course allows the students, as members of a team, to develop and conduct a training "micro-course" by using the systematic, behavioral approach to developing and instructing with reference to the Training Development Standards (AT&T Training Research Group).

LENGTH:

Two weeks.

WHO SHOULD TAKE THE COURSE?

The course is designed for those who are to actively and directly determine if training is needed, develop a training course or materials, instruct or conduct a training course, or redevelop a training course or materials.

WHAT SKILLS AND KNOWLEDGE ARE REQUIRED BEFORE COMING?

None specifically. This is an entry level course.

WHAT CAN A SUCCESSFUL GRADUATE DO?

Each participant will be able to

1. Conduct a preproject study.
2. Perform task analysis in a job study.
3. Construct and administer a criterion test.
4. Write behavioral instructional objectives.
5. Administer a mastery test.
6. Prepare course teaching activities and materials.
7. Analyze a field test.
8. Conduct regular class sessions using methods (lecture, discussion, casework, etc.).

APPENDIX 4

Summary of Training Concerns, Issues, etc.

Training Background of the Training Staff: Are training staff hired for their training expertise? If so, what is the educational experience that is looked for? If not, what are the qualities and experience looked for in selecting training staff? Are training functions separated? i.e. between course design and instruction? How are training personnel trained? What inducement exists for continuing professional development of training staff?

Status of Training in the Company: Is training considered a full-time career in the company? How does Training experience affect career mobility? i.e. Is experience in training considered a factor in advancement of personnel? When budget cuts must be made, does Training suffer high-profile expendability? (Quick savings with delayed penalty?) Are there clear Company policy statements on training?

Centralization vs Decentralization: Decentralization implies placing control of training (staff & budgets) in the line and staff departments that the training serves. Centralization means creating a central group that supplies training across all departments. So, training might be decentralized for line technicians and staff, but centralized for supervisors and managers, or vice versa.

What are the Advantages of Centralization: Greater Stability of training staff? Continuity of training staff expertise? Sharing of training expertise; improved interdepartmental communication among training staff? Increased potential for large-scale team response to major changes? Greater long-term capability? Better coordination for change-overs? Wider range of expertise, therefore greater overall flexibility? Greater cost control? Measurable improvement of the quality of training? Improved morale among training staff due to greater stability, security and significance for career development? Greater potential for research and experimentation?

What are the Disadvantages: Reduction of direct contact with the field, necessitating special efforts to sustain lines of communication? Longer lead times established as a matter of course in order to attain greater quality of training? Reduced responsiveness to short-term line training needs? Reduced flow-through of field experts among the training staff, and therefore reduced amount of field expertise among the training specialists? Less short-term flexibility? Less duplication that means less potential for diversity, variety and potential for small-scale experimentation? The negative aspects of a centralized power label: punishment, link to hiring, firing, promotion functions? Empire building? "If you want a one-day course nex week, go to Volkswagen, we're building Cadillacs here." Less clear cost control vis a vis departments and specific company operations?

Lines of Communication (Interface) with the Field (Line & Staff): What are the formal methods to ensure continuing interface between training staff and the Field? Is there Training representation at Departmental meetings? Is there Line representation on Training Committees? How does Training publicize its courses? Newsletters? Verbal presentations at company meetings? How is research of training needs initiated? What are the procedures for training of new staff? eg: Is there a clear company training policy for all or certain categories of new staff? How is formal evaluation from the Field conducted? Do Departments have direct control over their own training staff and budgets? What are the managerial levels Training staff can achieve? When new projects or major changes are initiated, how are Training staff involved? How is information about external training opportunities publicized within the company? What are the informal methods? eg: Is there means for Training staffs' personal interactions with their peers in Line and Staff? How are Training requests from the field encouraged? Is there a policy of bringing Line people into the Training staff? If so, is this for particular training projects or as a continuous 'flow-through' policy?

The Make or Buy Decisions: When a training diagnosis has been made, what are the factors that determine the make-buy decision? Assuming that company-specific technology is NOT a factor, what functions are considered appropriately served by buy courses? Are courses purchased from industrially-related companies? What are the nature of courses that have been purchased that are not industry specific? Who evaluates them? How are externally-run courses evaluated and the information disseminated in the company? Does the company sell courses that it has developed? Does the company contract to provide training for other companies, (a) by accepting trainees, (b) by sending instructors? Do Line or Methods Departments have control over the decision to buy?

Training Methods: a) On-the-job Training by Supervisors: Are supervisors trained for their instructional responsibilities? If so, what is the content of the instructional methodology (as opposed to job content)?

/3

b) Self-paced Learning, Programmed Instruction, etc: Are Self-paced courses administered centrally, on-the-job, or a mix of both? Assuming adequate lead time to develop a thoroughly researched and well designed Self-paced course, what are the learning factors that determine the decision, as opposed to instructor-led group courses? A number of non-learning factors may also be involved: how do they affect the decision to commit staff to Self-paced design: size and geographic location of the target trainee population; stability of content; cost; flexibility of entry time; job specificity vs. concept or whole-system learning; availability of expert Course Designers; quality of training (includes learning criteria); timing of delivery and duration of training; prerequisite training or experience; time for research and evaluation -- other.....
(Problem Analysis and other issues are covered elsewhere)

c) Instructor-led Groups in Classrooms: 1) Residential: What is the Company policy at each managerial (or other-designated) level? What schools exist? 2) Residential-non-residential: Temporary residence accommodation in local hotels, allowing for cost flexibility and fluctuating numbers of trainees? How are trainees introduced to each other, counselled, made comfortable? Other? 3) Do Instructors also design courses? Get training in Course Design? Change courses whether they have Course Design training or not?

PART C

LEARNING IN ORGANIZATIONS

Four Case Studies of Education in Industry:
A Model of Information Exchange

CASE STUDY NUMBER TWO

CANADIAN BROADCASTING CORPORATION

by

Alan Thomas, Project Director
Reg Herman, Principal Investigator
David Beatty, Principal Investigator
Jutta Keylwerth, Research Officer
Alan Etherington, Research Officer

An Internally Funded Research Project
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FOREWORD

This document represents the second in a series of four case studies of education and training programs in large non-educational organizations. The other three studies, involving Bell Canada (Ontario Region), Marks and Spencer (Canada), and Wardair, are completed or in their final stages.

For some years now we have been aware of the growth and multiplication of such programs. It is safe to say that they represent, in terms of expenditure and numbers of individuals involved, the largest sector of the educational enterprise in Canada today; as they do in most, if not all, industrial societies. No one could possibly write the history of education in Canada in the 1970's without taking account of these programs.

Yet not very much is known about them in any detail. Particularly little is known by those engaged in formal education, even by those engaged in developing educational policy, policy which now cannot afford to ignore them. They are, of course, interrelated with the more visible public system in many ways. Resources, human and other kinds, are borrowed or rented, techniques are adapted, and most important of all, individual Canadians in pursuit of knowledge, competence, efficiency, productivity, and often simply employment, move back and forth between these enterprises. However, the flow of information tends to be mostly one way. Those who participate in these "private" systems and those who manage them, know about both, since they are products of some part or parts of the public system in the first place. However, those who are only participants in, or managers of, the public system, know little of the other.

By their nature, the systems under examination are diffused throughout the society, mostly in the larger more high-technology organizations. Though it is unlikely that any organization of moderate size, as the Marks and Spencer study shows, is without some planned program of training and education. They are hard to discern for another reason; they are imbedded in the task that the organization pursues, which is not, by definition, an educational task.

The present study is particularly valuable in providing an example of the context of human resource development in which training and education in the Canadian Broadcasting Corporation function. The authors have been meticulous in describing and elaborating the principles and practices of that framework so that we might see and understand how the familiar educational concepts, such as instruction, evaluation, motivation, and learning, fit into the daily operations of a large organization.

Finally, they are largely invisible with respect to cost and payment. In this case we have some idea of what proportion of the organizations' expenditures are committed to training, but in general (other than in the four organizations described) we have little idea of how much money, publicly and privately, is spent in accomplishing educational and training goals. Nor do we have a clear idea of who, in the long run, pays for them or how their cost should be borne, and by whom. What is immediately clear is that like the elementary and secondary system (but unlike the post-secondary system) the individual bears very little or none of the cost.

We have no way of knowing whether the four organizations (that have generously and willingly cooperated with us) are representative of the total enterprise, spread as it is across thousands of organizations both public and private. We are relatively certain that most of the individuals managing these systems don't know either whether their programs are like any others. They do, of course, meet in organizations like the Ontario Society for Training and Development, in other similar provincial organizations, and now in the new national organization. Yet there are very few detailed documentations of programs within particular organizations in Canada to be found.

Despite the seeming diffusion and variety, there are some common features emerging. The authors have, in their concluding chapter, identified what some of those are. As the other two studies move towards completion we should be able to see them even more clearly.

We are beginning to be able to identify those foci of organizational activity around which training and education, however slightly identified, emerge.

We are also beginning to see the problem of relating the identification of need for training, or delivering training, and of evaluating its results, with the ongoing activities of the organization, where a variety of other criteria of success apply. The authors' description of the emerging linkage between assessment (P.A.) and training, and its intricate relationship to the line is particularly revealing. They have also emphasized the difficulties of managing these factors in an organization spread across the entire country.

The peculiar characteristics of broadcasting, and of the CBC as an organization, obviously affect the type of education and training, and its organization within the corporation, and yet as we have said, some common features are emerging that help us understand the true nature of both systems of education. Our purposes in these studies is threefold. First, simply to describe and understand these huge systems of education. We are interested in new and different manifestations of the management of learning.

Secondly, we hope that by seeing training and education in alternative contexts and in some detail, we will be able to throw some more light on the activities of the more visible formal system. What can be learned from these integrated systems of learning and action about the recurrent problems of integrating the formal system with the society as a whole.

Finally, we are aware of increased attempts at such integration. The emergence of a policy of employer sponsored training in Ontario indicates a need to know much more about the nature of systems already in place on the part of some employers. The present exploration of the Commission on Paid Educational Leave and Productivity will benefit by clearer information about intensive versions of paid educational leave already being utilized.

We are grateful for the cooperation of the CBC, in particular Mr. Bob Gurney who has been helpful and supportive. We are all grateful for the detailed relentless and imaginative labours of the authors, Dr. David Beatty and Mr. Alan Etherington, and the careful editing and other assistance of Ms. Jutta Keylwerth.

CHAPTER ONE

BACKGROUND TO CASE STUDY #2

This report is the second in a series of four studies undertaken by the Department of Adult Education at the Ontario Institute for Studies in Education. The central purpose of this project is to gather data which describe the educational and training activities of large industrial, commercial, government or private organizations whose main purpose is not instructional.

In the case of the CBC, it soon became clear that the training subsystem could not be usefully described separately from the Human Resources Management system of which it is a key part. Much of the structure for learning and for developing people is fashioned at this larger level. As we widened the scope of the report, we were faced with an array of activities and models which placed a heavy demand on limited time and resources, yet tempted us continually by their elegance to explore in more depth. We chose those aspects of the HRM system that we felt were most directly associated with development of people, and which had already received detailed attention by the staff.

The study is limited to a descriptive approach. We used open interviews with the human resources staff, tape recording the conversations. From these we constructed our model of the system, and returned for further questioning and testing. This approach worked well at CBC because the system itself was well-modelled and documented with a high priority placed on data collection. Our sources were only the human resources staff, backed up by the policy documents and data they collected. We did not have direct feedback from line managers, course participants, or senior management. However, no information that we did request was denied to us, and the openness of the interviewees to discussion and inquiry made our bias seem less critical.

We contacted Mr. Bob Gurney, Director of Human Resources Management, English Services Division of CBC,* in March 1978, and began our interviews in April 1978. Together, we had several interviews with Mr. Gurney and his associate, Les Lawrence, Director of Training. We then separated and interviewed several of the headquarters staff and one of the regional trainers. The respondents are listed at the end of this section. So many changes have occurred in the organization between the end of the interviewing stage and the actual writing of the report in September 1978, that it was impossible to provide a complete, up-to-date picture. For example, after we completed the interviews, the CBC lost a seventh of its budget, and we were not able to report on how this has affected the HRM system.

This report is a description of front line education in Canada in the seventies. The Human Resources Management (HRM) system at CBC is a "real-time" learning system, accountable to a line organization for its contribution to the organization's product. It is embedded in the reality of people at work, and in the systems that manage and shape the conditions of that work. We were lucky enough to encounter a team of articulate, knowledgeable practitioners who were implementing an organization development process through the HRM system.

Since we were describing a system and a development strategy, we may have erred in our attributions of what the strategy is. There was a strategy, and our reporting of it was in no way intended to convey the message that we were the interpreters of the system. The experts in this report were the in-house professionals who were putting the project together. We hope our limited access reflects a level of understanding that does justice to the painstaking work and dynamic actions they are engaged in. We particularly thank the Director, Mr. Bob Gurney, for sharing his knowledge and allowing us to talk so freely with his staff.

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* We chose to study the English Services Division, and our comments apply only to ESD.

Staff Interviews

Bob Gurney, Director of Human Resources
George Beazley, Manager, Career Opportunity
Howard Simpson, Manager, Manpower Planning
Marta Townsend, Manager, Research and Development
Les Lawrence, Manager, Division Training

CBC Headquarters Training Staff

Jack Vance
Len Barnett
Tom Prentice
Les Holmes
David Riesman

Barb Brownlee, Training Assistant, Ontario Region

CHAPTER TWO

BROADCASTING IN CANADA

This brief description of the context in which the training described in this report occurs, will discuss firstly some of the general features of the world of broadcasting before considering some of the important characteristics of CBC.

The features of broadcasting that appeared to be significant to the respondents of our study were:

- the nature of the product
  - it has high visibility
  - it is subject to an immediate and subjective evaluation by an audience
  - it must be produced against a deadline despite the fact that many factors that affect a production are beyond a producer's control (e.g. the weather)
  - the "show must go on"; some footage must be shown or some tape played regardless of its lacking preparation or rehearsal
- the rate of technological change
  - in 1953 the film of the Coronation had to be flown across the Atlantic before it could be shown; within a decade the Tokyo Olympics in 1964 could be relayed instantaneously by satellite
- the competition, especially in large audience centres
  - Toronto residents at present can receive 17 channels, 15 FM and many AM radio stations. From the early days of broadcasting (and the first radio station, XWA Montreal, was licensed in 1919) there has been in Canada a mix of both privately and

publicly owned stations

- the complexity of program production
  - the CBC orientation film "Inside Out" shows 30 to 40 different occupations involved in the production of a TV show requiring individual competency and efficient teamwork

The important characteristics of the CBC include:

- its formation in 1936
- an accountability to Parliament and the receipt of almost $420,000,000 in public funds per year
- the relatively slow growth of public access to radio
  - 1929 - 300,000 radio sets
    1936 - 49% of the population
    1937 - 76% of the population
    1965 - CBC English service - 98% of English speaking population
    - CBC French service - 98% of those who spoke only French
- contrasted with the more rapid, later growth of public access to television
  - 1952 - 30% of Canadian homes
    1958 - 91% of the population
    1968 - CBC English service - 95% of the English speaking population
    - CBC French service - 90% of the French speaking population
- its mandate, defined in the Broadcast Act as:
  - "(f) there should be provided, through a corporation established by Parliament for the purpose, a national broadcasting service that is predominantly Canadian in content and

character;

(g) the national broadcasting service should:

  - (i) be a balanced service of information, enlightenment and entertainment for people of different ages, interests and tastes covering the whole range of programming in fair proportion,
  - (ii) be extended to all parts of Canada, as public funds become available,
  - (iii) be in English and French, serving the special needs of geographic regions, and actively contributing to the flow and exchange of cultural and regional information and entertainment, and
  - (iv) contribute to the development of national unity and provide for a continuing expression of Canadian identity."

. a permanent staff of 12,000 consisting of

- 6,000 - management, clerical and office
  5,000 - technical
  650 - radio and TV producers
  450 - news writers and reporters

about 3/4 of these are represented by 26 trade unions or associations

. probably another 12,000 occasional or contract employees who research, write or perform (their total wage bill in 1977 totalled $51,000,000)

. a national radio audience that averages around 713,000 for "Sunday Morning"; 669,000 for "World at Eight"; and 449,000 for "World at Six". Averages accumulated during the week total 893,000; 1,080,000; and 1,115,000 respectively

- a television audience ranging from less than 100,000 to upward of 3,000,000
- a geographical span that covers six time zones with more than 75 radio and television broadcasting stations* and a multiplicity of retransmitters
- a head office in Ottawa, the headquarters of the English Services Division in Toronto, with Montreal as the headquarters of the French network, International Service and Engineering Service
- extensive competition, especially from USA
    - (only 2 of the television channels and 3 radio stations in Toronto are CBC)
- CBC radio, however, is almost entirely Canadian content. It carries no commercials
- internationally, CBC has a large staff and considerable expenditure when compared to the size of the Canadian population, but produces a high volume of programming per employee - to a great extent on a decentralized basis (See Figure 1.)
- an annual total budget of $500,000,000 including $80,000,000 from commercial revenues

And finally, many broadcasters, politicians and some of the public have always expressed a concern about the "high" (or "low") amount of Canadian content available through these media. This creates a dilemma for the CBC as it needs to maintain a fair proportion of the audience and this audience generally prefers to watch American programs.

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* Some of these are owned outright.

FIGURE 1

INTERNATIONAL COMPARISONS: BROADCASTING SYSTEMS

Country	Ratio of staff to total national population	Total cost/ population	TV hrs. per employee p. a.	Radio hrs. per employee p. a.	% TV produced outside main location	% radio produced outside main location
Australia	2086	$13.29	0.9	na	na	na
Canada	1925	$19.95	2.7	9.3	31.5%	59%
Japan	6642	$ 6.31	0.8	1.2	0	0
Sweden	na	na	na	4.4	12.3%	15%
United Kingdom	2177	$ 8.50	0.5	4.4	17.0%	12%

Source Toronto Star, May 15, 1978.

CHAPTER THREE

THE MANAGEMENT MODEL SYSTEM

There is a systematic model underlying the development of the human resources system at CBC. It is rooted in management science and information theory, and can serve as comparison against present actions and decisions. The design of the system is ahead of the implementation, but it does represent the map against which data and decisions should be viewed.

There are several advantages to having an explicit blueprint - both for an observer and for the staff.

a) It provides the grounds for discussions of consistency, congruity, and basic assumptions. In many training systems these discussions are absent since the main staff in the situation do not have a model against which they might test behaviour, nor have they access to specific information upon which to base their opinions or decisions.

b) An explicit process can be examined, changed, and improved when there are checkpoints and indicators, requiring detailed discussion between levels and divisions of the organization.

c) A comprehensive model enables the organization to deal with its human resources in an integrated fashion. It offers efficiency of data collection and interconnected decisions once the overlapping processes are in place. For example, the performance analysis process can (1) perform the needs analysis and measurement of effectiveness function for the training department as its quality is sharpened; (2) provide the manpower planning and career development functions with appraisal of the human resources for matching people with jobs, arranging transfers, impacting recruitment, etc.

d) It sets developmental priorities across the HRM division as a whole; and a shared model and an integrated strategy are a strong motivating factor for the members of the team.

e) The model justifies and operationalizes its indicators which set performance standards in human resource management to which line management have to address themselves.

Essentially, the blueprint is the framework within which the training function must be examined.

In this section, we shall describe the origins of the HRM model, the HRM Department, its relationship to the line, and we will examine, in more detail, three functions that are related to delivery of training: (1) the performance appraisal system; (2) the Management by Objectives (MBO)/ planning function in the HRM Department; (3) manpower planning/career development.

History of Human Resource Management at CBC (ESD)

The current HRM system can be dated from 1975 when Bob Gurney was hired as Director of Human Resource Management. Before this time, HRM was sparse. The Personnel Department had a very limited, mainly administrative, function. A CBC study in 1974 by McKinsey and Co. reported that CBC spent 60% of its budget (a high proportion) on payroll, but had no effective policy regarding human resource development. There are no statistics available on training before 1975. Money was spent at the discretion of regional management and producers, and there were no overall records of training, skills, appraisals, job descriptions, etc.

An excerpt from a memo written in August of 1978 by Mr. Gurney to J. Lorsch, Professor of Management Studies, Harvard Business School is a good description of the reality of pre-1975.

> "Until the advent of Television, the CBC was a profitable radio system which cost the taxpayer little if anything. As you might expect, personnel practices were rather loose and entrepreneurial in nature. In the early 50's, when Television was introduced to Canada, capital and operating expenditures increased enormously. (1978 annual expenditure approximately 420 million plus 80 million revenue from sponsors and resale.) Unfortunately, the CBC management ability did not rise proportionately with the rate of expenditure. As might be expected, the public demanded better control of tax dollars used in broadcasting, resulting in the growth of a financial and personnel bureaucracy, fraught with controls and procedures. This bureaucracy was, and still is, viewed by the "programmers" as a hindrance to effective broadcasting

resulting in a dichotomy of interest instead of a cooperative approach to a publicly owned and operated broadcasting enterprise. The "personnel" bureaucracy was concerned with control of numbers of staff, processing of documentation, handling payrolls, preparing reports to legislative bodies, such as social security, labour practices, and fair employment instead of ensuring good human resource practice. Each of our regions operated reasonably autonomously and staffs employed autocratic and "personalized" methods of hiring, supervising and controlling staffs. A plethora of unions and employee associations (currently 29 in number) grew out of the need for employees to protect themselves against such practices. During the late 60's and early 70's, this situation did not alter appreciably, but did continue to harden. As at that time, and to some extent even now, internal management styles were a reflection of:

.monolithic structures within the CBC pursuing self-interest
.short-term perspective in the hiring and promoting of staff
.lack of acceptance of well-designed entry and performance standards
.regional parochialism in the employment of human resources
.greater concern for prestige than performance
.autocratic management style
.democratic (gutless) management style
.intrigue and personal indebtedness
.combinations of above styles

These internal influences are compounded by external environment forces:

.regional disparity in work opportunities in the Canadian economy
.external supply of women that is not yet tuned to broadcasting needs
.language and culture barriers
.low skill availability in some regions
.talent moving to offshore markets
.protectionists preventing use of offshore talent
.attractiveness of show business not matched by developed skills and competitive attitude."

This description represents a perception held by the current HRM Director of conditions that existed at the time of his arrival at CBC (1975).

Thus, one major factor in understanding the form of the present system represents a radical break with the past. The system had to be gradually placed into the heart of the organization, and the organization had to outgrow many habits. The strategies of development included:

.....obtaining visibility and establishing credibility (e.g. running popular pre-retirement courses);

.....beginning with rough approximations and gradually improving and eventually fine-tuning methods (e.g. doing in-depth statistical and regional review of performance appraisals to reduce bias);

.....designing interventions to satisfy present needs yet ensuring that the present technology is compatible with the pieces that it will fit later (e.g. a current Department problem leads to an in-depth training analysis and HQ design that becomes an off-the-shelf resource for regional delivery at a later date);

.....designing information systems that increase the effectiveness of management to make informed human resource decisions (e.g. studying sources of overtime pay and feeding patterns back to regional management).

Another factor in this historical situation is the sense of excitement around the challenge to succeed with a "new approach", and the successes in demonstrating its effectiveness. The risk in the venture would appear to be a misperception of what others in the organization think about these new facts of life, and the possibility of both parties being vulnerable to a major change in the power balance.

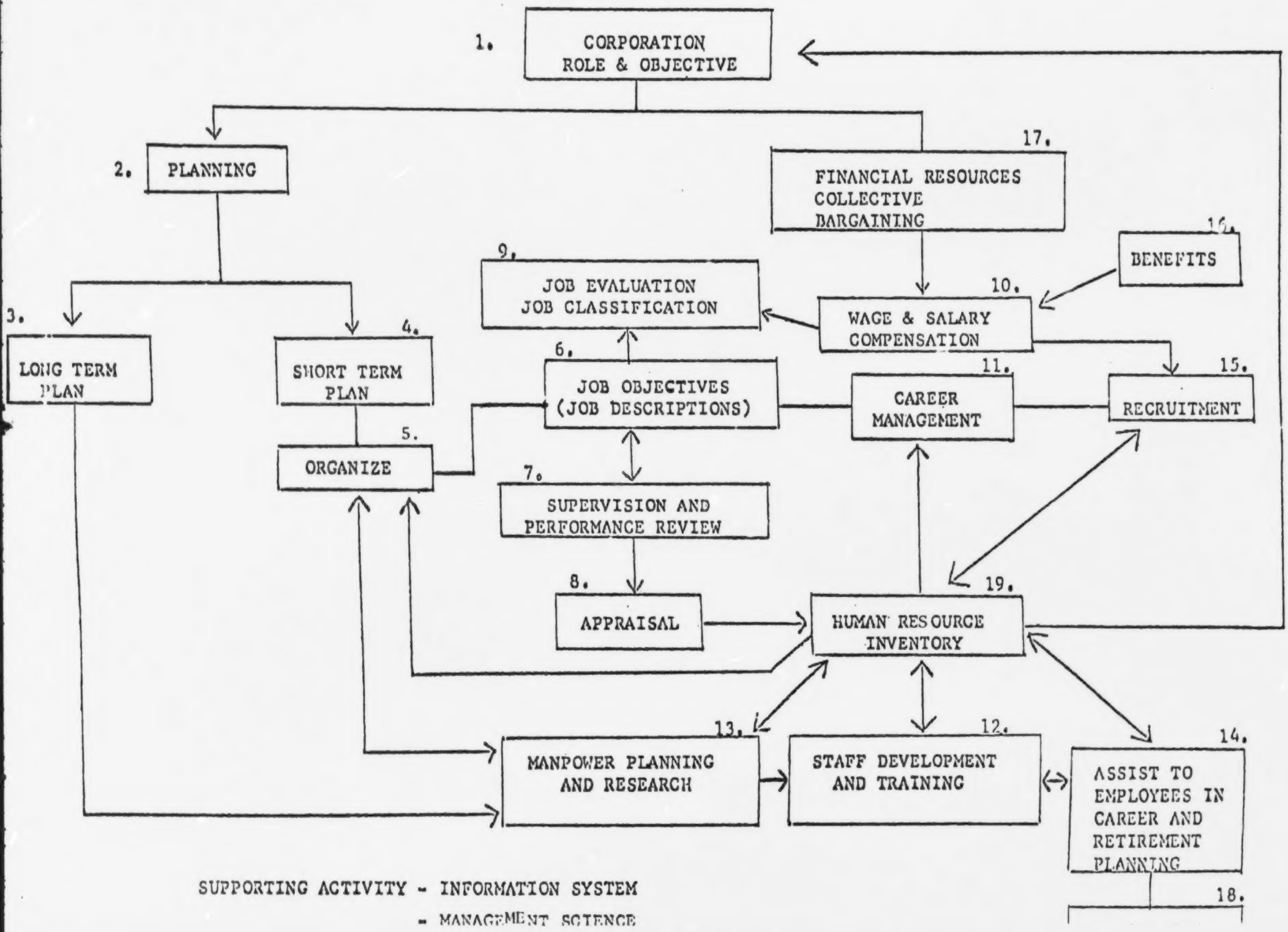
The Human Resource Management Model

The following brief description outlines the model against which current activities are compared. The model is capable of finer discrimination and discussion than this report is able to take account of.

Each box in Figure 2 represents a specialized function about which several chapters could be written. The linkage and information flow between these elements is also very important. In this report, there is not time to more than label the areas. The model is described logically - that is, outside of time, and is not meant to be a representation of what is now in place, but a template against which the current processes can be measured.

FIGURE 2

CANADIAN BROADCASTING CORPORATION - HUMAN RESOURCES MANAGEMENT MODEL


1. CORPORATION ROLE & OBJECTIVE
2. PLANNING
3. LONG TERM PLAN
4. SHORT TERM PLAN
5. ORGANIZE
6. JOB OBJECTIVES (JOB DESCRIPTIONS)
7. SUPERVISION AND PERFORMANCE REVIEW
8. APPRAISAL
9. JOB EVALUATION JOB CLASSIFICATION
10. WAGE & SALARY COMPENSATION
11. CAREER MANAGEMENT
12. STAFF DEVELOPMENT AND TRAINING
13. MANPOWER PLANNING AND RESEARCH
14. ASSIST TO EMPLOYEES IN CAREER AND RETIREMENT PLANNING
15. RECRUITMENT
16. BENEFITS
17. FINANCIAL RESOURCES COLLECTIVE BARGAINING
18.
19. HUMAN RESOURCE INVENTORY

SUPPORTING ACTIVITY - INFORMATION SYSTEM
- MANAGEMENT SCIENCE

One starts with the purposes of the organization, not the people. One employs people to do work - not to have their needs filled. The definition of the core missions are:

1) To provide balanced programming to Canadians who have no other available sources.

2) To reflect the Canadian way of life to other Canadians in order to develop mutual understanding.

3) To generate revenue.

4) To broadcast programs necessary, but not sponsorable in a regular economic situation.

One adds to this the nature of the constraints (e.g. competition from other TV networks; inflation; technology change) and formulates short-term and long-term plans (3,4).

As of September, 1978, the corporate long-range plans were not in place in the model.

Immediate plans/goals (4) give rise to tasks that are organized into jobs. Descriptions are written and objectives set. At CBC, the HRM staff are coordinating technologies like zero-based budgeting and MBO require a rationalized process on an annual basis. In terms of the model, once jobs are set, one can go two ways. One can look at how work is going to be classified (9, 10, 16, 17) and paid for. Or one can determine how to measure it, review it, and appraise it (7, 8). This total system is developed and monitored by the HRM staff for the line management.

It is at this point that the actual people to go into the job "appear" in the model. By this point organization design has determined what, precisely, is supposed to be achieved. The design of work is rooted in the performance of tasks to meet the corporate objectives, independent of people. However, it is also very important to recognize people-issues in all aspects of the structure and to have the structure fit human as well as organizational needs. The structural appropriateness will not matter if the people do not accept it. The model handles the logic of work, but the skill in working with people to actualize the blueprint becomes critical.

With goals, tasks, and jobs outlined, the Human Resource Management staff play a more visible role. People must be assigned to jobs; they have to be paid; career paths have to be made available; and training must be provided to ensure they have the skills to stay effective.

As jobs are being performed, there is review of performance of tasks (7), and appraisal of employees' performance. A key HRM function (19) is to monitor the skills available in the organization via appraisals, training reports, etc. The Human Resource Inventory receives estimates of future needs (from Manpower Planning (13)); lets recruitment (15) know the kind of personnel that should be added; feeds information to the training department (12) on needs for training; and keeps track of exits (14) - voluntary and otherwise - from the system. Thus, the HRI (box 19) sums up the total picture of human resources available to the corporations in meaningful indicators (e.g. skills and mobility of people with these skills), and feeds this information back into the corporate goal setting process at (1) so that hopefully the organization will not commit itself to goals that it does not have the capacity to deliver.

Infused through this system are the information systems and management science techniques that constitute the cybernetic control processes in the model. These two functions are coordinated through headquarters under the direct leadership of the HRM Director.

There are several other links and subsystem processes that could be examined in and between the boxes. The collective bargaining, wage compensation packages would involve areas 9, 10, 16 and 17. Although this report focuses on elements more related to training, the other components are receiving similar systematic attention in current CBC activities.

Over and above the tasks of creating and installing these systems is the major development task of teaching people how to work with, and function in, this system. The purpose of the model, as outlined, is to produce an effective human resources system to enable the line managers to achieve their performance objectives (e.g. high quality programs). However, since the organization is neither motivated, nor skilled in this approach, a significant amount of time and effort has to go into "selling" the system, establishing credibility, training managers and producers how to work with it, and continually monitoring and assisting them to manage well. For example, two to three years have been spent on "teaching" staff to do valid performance appraisals, and working with the "Management by Objective" planning documents.

The installation of the human resources system is advanced in several ways:

a) Twice a year regional and HQ HRM staff meetings are held to discuss progress and revisions of HRM objectives and performance, examine technologies being developed by different departments, and plan for upcoming development tasks. For example, in September 1978, J. Lorsch of the Harvard Business School was invited to talk about strategies and tools for HRM managers to use in interventions with line managers to improve productivity and performance. The pattern has been to have 2 days of in-house review, followed by a day with an outside expert on an area appropriate to current needs.

b) Testing the technologies with the HRM staff first. For example, the MBO system had been in place in HRM for two years, and they were now getting ready to integrate it with other parts of the organization. This pretesting is important for generating credibility, developing HRM staff expertise, and surmounting the shortcomings of the technology.

c) As the system goes in place, it starts to provide accurate data to senior management about how human resources are being managed. This information is fed back to the line managers, and they are accountable for responding to that information to the Assistant General Manager who has been supportive of the HRM system. Most of the HRM policies are cleared through the AGM and fed to regional directors. For example, last year, results of an HRM study on overtime spending revealed a high use of overtime by producers and newsroom directors, when a technical director was absent; it is now expected that the regional managers will ensure that this expensive pattern of work does not repeat itself. As the HRM director stated in an interview (May, 1978):

> "As soon as we get information, we feed it back - once he is aware of it, half the battle is over. It's just a question of getting it to the right ears, and providing the skills to correct the situation. HRM improves the quality of information and provides more sophisticated people to management, but they still control what their organization looks like and how they will do business."

The data gathered by the HRM sector are very important. For example, the performance appraisals are becoming the basis for promotion/discussions. The first promotions based on performance appraisals were due last summer, and the importance of HRM guidelines to the mainstream of the CBC culture have been greatly enhanced. Another example: when the needs analysis requests come in from line managers, they are compared against the performance appraisal information they themselves have previously supplied. When significant discrepancies occur across indicators, there is a discussion between HRM staff and the line management.

d) Strong control of budgets and rules regarding use of human resources. The development of rational policies from this model require the line management to be accountable for the way they manage their people. These policies are cleared through the Assistant General Manager, and the regional directors are responsible for seeing that they are in place. For example, earlier waste and inefficiency from having regional managers hire whomever they want to fill a short-term need has been replaced by a system that requires them to have gone through a proper search procedure (conducted by the HRM Department). Since the HRM Department has control over the budget for relocation, if the local management has not followed procedures, they place their selection in jeopardy.

e) The HRM Department has demonstrated its ability to be cost-effective. In 1978, the HRM Department estimated that it had saved the corporation $7,500,000, with an overhead of $4,500,000. $1,700,000 of this saving was in salaries savings representing a 7% cut in salaries; $3,600,000 was saved by cutting the size of the organization by 3% - through identifying the low performers; and $2,000,000 by identifying weaknesses in the overtime budgets. These claims bolster the arguments of the HRM at senior management level when budget and operational decisions are made. Although these results do not represent actual revenue, they do represent "savings" for the organization in terms of demand on capital.

f) The continual feeding of methods and direction from the regional HRM staff to the line manager is an ongoing influence on operations. The relationships built by this service are important in establishing influence at the production level.

The system is iterative. Each year's run-through brings more HRM technology in place, more experience by people in thinking this way, more working out of mismatches in procedures, etc. A developmental frame requires paying attention to the improvement of the quality of the processes as well as the quantitative data of how much training has been delivered at what cost. As the data get more accurate, and the decision-making norms more established, the model should make large increases in efficiency and transform the work processes of the organization.

The Relationship of Human Resource Management to the Line

HRM headquarters in Toronto sets corporate policy with regard to efficient use of human resources. It designs the processes and procedures that managers, producers, etc. must use. As long as these procedures are effective, the HRM Department is in good shape. The backing of the Assistant General Manager produces an impetus for change at the top.

At the same time, the HRM Department is available to assist the line in meeting their objectives. As Gurney described it, "We have given them the technology to manage their human resources, and we supervise the integrity of that management process". One way to do this is by providing the information that pinpoints needs, discrepancies, errors, etc. A second way is to provide the skilled people necessary to solve the problems. This is done through training, and through the manpower planning, career development, and recruitment functions.

The Regional HRM Directors report directly to the Regional Managers, as do Directors of Engineering, Finance, and Producers of TV, and of Radio. Regional Committees, made up of these directors, set priorities for training, and review the performance appraisal processes. In one sense, it could be said that the line management makes the key human resource management decisions. However, these decisions from the regions are reviewed at HQ, and adjusted, where necessary, to fit corporate budgets and integration with other regions. It is possible to consider Gurney as the person who has most influence since he has the larger view, knows the technology inside out, and controls the divisional HRM budget on a number of issues significant to the line management - e.g., recruiting, transfers. He described the regional management as reacting in a variety of ways - some cooperating, others tending to follow their own rules. In cases of conflict, the AGM is the final arbiter.

The percentage of HRM budget of total budget is decided by senior management on the basis of submissions by departments against a ceiling established by the crown corporation budget. (The 1978 allocation was $420,000,000, plus $80,000,000 earned revenue.) The allocation of the HRM budget within the HRM allotment is heavily influenced by Gurney. However, there must be a "logical" resolution of the priorities submitted by the regions that can be justified to the HRM group and to the regional managers.

The divisional HRM budget for 1978 was $4,570,000, about 3% of the payroll. The per capita costs for human resources (including regional and HQ costs) average out to about $750.00 per person.

With the major change in methods which this model entails, the role of the HRM Department to train and promote managers also gives it a formidable channel of influence vis-à-vis the line.

The relation with the line varies significantly from region to region, most frequently with the attitude of the senior regional management towards the influence acquired by the HRM Department.

In terms of cost-effectiveness and direct service to the line, the HRM Department has improved greatly from its beginnings. For example, it has delivered over five times the amount of training per capita from 1974 with a small rise in resources. It can point to $7,500,000 in savings from other HRM functions.

Three Functions Related to the Delivery of Training

1. Performance Appraisal Subsystem

There are several functions the performance appraisal (p.a.) system can contribute to the organization and its human resources development/management goals:

1) It creates awareness and promotes feedback between supervisor and employee of what is expected of him and how he is doing.

2) It is the front-line collector of information on the level of skills and performance in the organization.

3) It *pinpoints* expertise and *identifies* human resource trends in the organization. For example, it can locate a "high flier" with the right blend of skills for a new position upon short notice, or it can provide a rough measure of the training need areas in the coming years.

Performance appraisal (p.a.) systems are also notoriously vulnerable to game-playing and misuse. CBC has used variations on p.a. systems before. They depend on constructive delivery and on acceptance of negative feedback. The meaning of p.a. data when interpreted at a distance is unreliable. In the absence of other data, p.a.'s are powerful, persuasive tools for making personnel judgements.

The HRM at CBC chose the p.a. system as a central factor in their HRM technology; the system was introduced three years ago (1975) - the first choice for development in the thoroughly-modelled HRM plan. The technology appears to have moved from the "rough block" to the "fine tuning" level of attention although we have not investigated performance appraisals in the field and there may still be considerable resistance to p.a.'s.

The performance appraisal form is divided into three categories. Managers and subordinates fill this out once a year. The interview process differs from supervisor to supervisor. For instance, in some cases, the employee fills out his own estimate of performance ahead of time and discusses it with his supervisor, while in others it is only the supervisor who fills out the form prior to the discussion. Copies go the the employee, the supervisor, and HRM records at divisional level. (See Appendix One for sample p.a. form.) Currently, all managers and senior union members (about 40%) are involved in a performance appraisal.

The first category for review is job performance activity. Each department has its own subset of skills that apply to the jobs of its staff alone. Job description categories were constructed through the manpower planning function and the research department working with staff from the particular areas.

The second category, "performance abilities", reviews general characteristics over and above the job performance steps. The third section is a form assessing the individual's availability for promotion and transfer, as well as his/her career development progress.

Over the last three years, several methodologies to improve the quality of the p.a. process have been implemented. They are aimed at increasing the commitment and the expertise of the line to conduct an effective employee review, and generate valid, reliable data. Examples are given below.

a) The senior regional committee reviews appraisals of each department in order to establish norms of quality and equity.

b) Statistical examinations of biases in the data are carried out, and statistical measures are applied to correct for any bias.

c) Workshops are offered by HRM staff to regional groups. Data from the reviews are used in several ways:

  1) They identify the "high fliers" for promotion, and speed replacement when internal jobs become open. Last summer (1978) saw the first promotions based on the performance appraisals, and should signal to the field the importance of the procedure.

  2) They identify low performers for corrective action or termination. The HRM system estimates that they

saved the corporation 1.8 million dollars through using these ratings to locate individuals who could be released with no effect on organization performance.

3) Data go to the HRM inventory as additions to current skills and performances of the organization. These can be used by the R & D function in a variety of ways - e.g. testing hypotheses about what kinds of people are most successful in what kinds of jobs, and what kinds of entrance tests would predict this success.

4) Data go to the training department. There they are compared with training needs analyses, organization priorities, and other information to determine training priorities and strategies. The p.a. information is not yet of sufficient reliability to stand on its own as needs analyses data.

When this reliability is established, the p.a. system can be used to "control" the training function; that is, it "decides" what is needed through its indication of the levels of skills and performance currently in place in the organization. It can evaluate the training and development effectiveness through the differences in p.a.'s on dimensions related to the training that was delivered.

Performance appraisals also represent an opportunity for HRM to become salient in influencing behaviours of the line managers. To cite 2 examples: (1) they increase the planning for effective use of human resources on a regular, visible basis; and (2) they provide the data to indicate whether management are succeeding in their responsibility to develop competent subordinates.

At the time of writing this report, the Training Department had not yet been involved with training other departments in the performance appraisal systems; there had been no concerted training program to bring p.a.'s up to a certain level of capability.* Rather than treating it as a "training" problem, CBC appeared to be working through the senior regional management to gain commitment to the process.

The future will probably see a greater relationship between the p.a. process and the training delivery decisions. For example, it would be expected that the requests coming from the line managers for training would be consistent with the needs identified in the performance appraisal system. Discussions around these and other training-need sources (e.g. technology change and job replacement) should increase the importance and usefulness of training to the line. In this direction, there is a probable evolution from the control nature of the p.a. by human resources over the line to the control function of the line managers on the Training Department. For example, the manager is responsible for identifying needs and planning solutions, but the training department is responsible for providing the expertise to implement training solutions.

The career development manager at ESD headquarters in Toronto monitors the p.a. development in the English Services Division. Attention continues to be paid to the quality of the process and this will be continuous since the p.a.'s are the heart of the system.

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* As of October, 1978, the Training Department had recently produced a Performance Appraisal package, and had trained trainers from the various regions in delivery of this training.

2. Planning/MBO Subsystem

The HRM staff assumes responsibility for the effective performance of the human resource system. It also provides the line management with the information and tools they need to decide and implement effective practices. On both counts, it depends on an accurate planning for and monitoring of human resources. The planning/MBO process in the HRM Department is also a test and a model of the methodology to other members of the organization.

The HRM team has evolved a set of indicators against which to plot goals and action plans for the coming year. (See Appendix Two.)

Goals are set by the local HRM personnel in cooperation with the annual planning being done by the line managers in the regions. From the plans of the line managers (October), the training person will develop a set of action plans (e.g. number of training sessions). These are fed back to the line managers to coordinate with their final plans (January). All plans are entered in the annual budgeting/ planning review.

The regional people also deliver their services in accordance with targets set in the 16 overall HRM criteria that are indicators of the overall system. (See Appendix Three.) An intriguing interdependence is implied for the relationship of the local HRM staff and line managers since many of the outcomes are not directly under the control of the HRM person (for example, ratio of work force to program hours). Discussions between line managers and the HRM staff represent opportunities for proactive problem-solving.

The indicators, results, and action plans for the next year are the subject matter for the first two days of the bi-annual HRM staff meetings. (The third day is usually spent with top calibre specialists to address an action issue of current salience in the development of the HRM system.)

The system has been in place (in the HRM system) for two years, and is becoming a basis for management. The Director of HRM follows the use and meaning of the report for each of his Regional HRM Directors, personally estimating the congruity of the system and the value of the goals. In addition, a wide range of analyses are done on these indicators to "rank" performance in the regions. For example, the Director will rank the difficulty of an assignment (geographical dispersion, number of years on job, etc.) multiplied by the ranked degree of success in training delivered, and come up with a success/constraints ranking. These indicators may lack face validity as performance measures, but they certainly represent a challenging basis for talking about performance in human resource development!

In the fall of 1978, the HRM Director was to "go on the road" at the request of the AGM to work with other senior Regional HR Managers around using the planning/MBO process.

In some senses, the MBO system offers the framework by which HRM can be evaluated as a system. It serves as a basis for discussions with line management on how to manage the human resources of the corporation. The power of the data from the MBO systems pinpoints problems requiring joint action.

It also provides the data matrix whereby particular subsystems can be evaluated. For example, regions can be compared with each other on some generalized indicators, and success performance targets can be established in human resources so that managers who are promoted have the demonstrated capability to manage people.

In addition, the MBO system represents an example of how the HRM Department pilot tests and works the bugs out of the HRM technology before moving it out into the organization. The training department, and members of the HRM system begin to assume an on-the-job training role with their line managers with respect to using the tools of the HRM system. In the letter to Professor Lorsch referred to above (August 1978), Gurney said:

> "We have now reached the point that our credibility is sufficiently recognized such that some of our managers are presented with opportunities to assist in the more proactive role of assisting in improving organizational effectiveness.
>
> These opportunities have typically been occasioned by:
>
> - compensation problems
> - management conflict
> - training, opening new horizons
> - labour problems revealing management inadequacies
> - cost squeeze
> - difficulty in setting objectives
>
> In some cases, our managers have responded to these opportunities, in others, they have not recognized the problem as an opportunity area or have lacked the skill and confidence to pursue the opportunities. In still other cases, managers are regarded as unable to contribute because of the historical image. Some of these instances are exacerbated by some Human Resource Managers who resort to combative postures.
>
> Since proactive problem-solving is the heart of a contemporary Human Resource Management system, it is indeed timely that we attempt to improve our skills in this area."

3. Manpower Planning/Career Planning Subsystem

These functions are concerned with the "development" aspect of human resources in organizations. The goal of manpower planning in the English Services Division is:

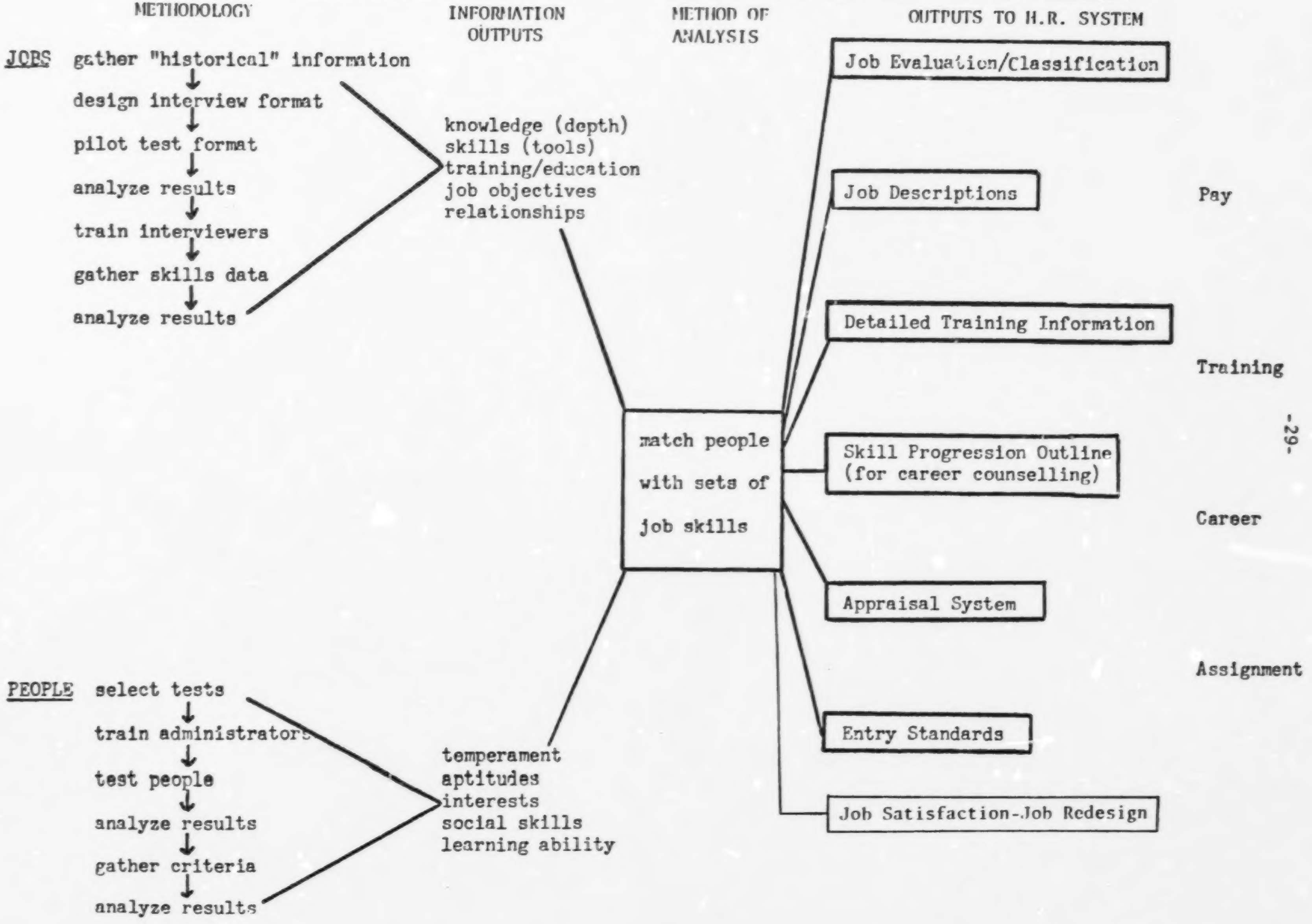
> "To ensure a productive work force can be available for timely deployment by defining it properly to permit systematic recruitment, training, rotation, development, compensation, and termination within an appropriate policy framework."

To successfully fulfill this role requires a properly structured work force and well-designed information systems. With these, it becomes possible to recruit, train, develop, and reassign individuals to the right position at the right time. It enables individuals to plan a CBC career, and it enables the organization to man its system efficiently.

A major process has commenced to define the professional groups necessary to accomplish the organization's objectives, with each group being designed to provide valid career fields, controlled entry and flowthrough, training and development standards and competitive pay. These will replace a traditional system where people become identified with the work department they happened to be hired in, rather than a skill/expertise discipline which can be assigned to any department. Dr. Townsend, in the Research and Development function at HQ, has begun a detailed interview process to define jobs in terms of skills and performance, and is currently testing a variety of instruments to identify predictors of success in CBC jobs. The following diagram summarizes briefly the purpose of the projects. (See Figure 3.)

FIGURE 3

RESEARCH PLAN FOR PERSON/JOB MATCHING - DR. M. TOWNSEND, HUMAN RESOURCES RESEARCH DEPARTMENT


METHODOLOGY
INFORMATION OUTPUTS
METHOD OF ANALYSIS
OUTPUTS TO H.R. SYSTEM
JOBS
gather "historical" information
design interview format
pilot test format
analyze results
train interviewers
gather skills data
analyze results
knowledge (depth)
skills (tools)
training/education
job objectives
relationships
PEOPLE
select tests
train administrators
test people
analyze results
gather criteria
analyze results
temperament
aptitudes
interests
social skills
learning ability
match people with sets of job skills
Job Evaluation/Classification
Job Descriptions
Detailed Training Information
Skill Progression Outline (for career counselling)
Appraisal System
Entry Standards
Job Satisfaction-Job Redesign
Pay
Training
Career
Assignment

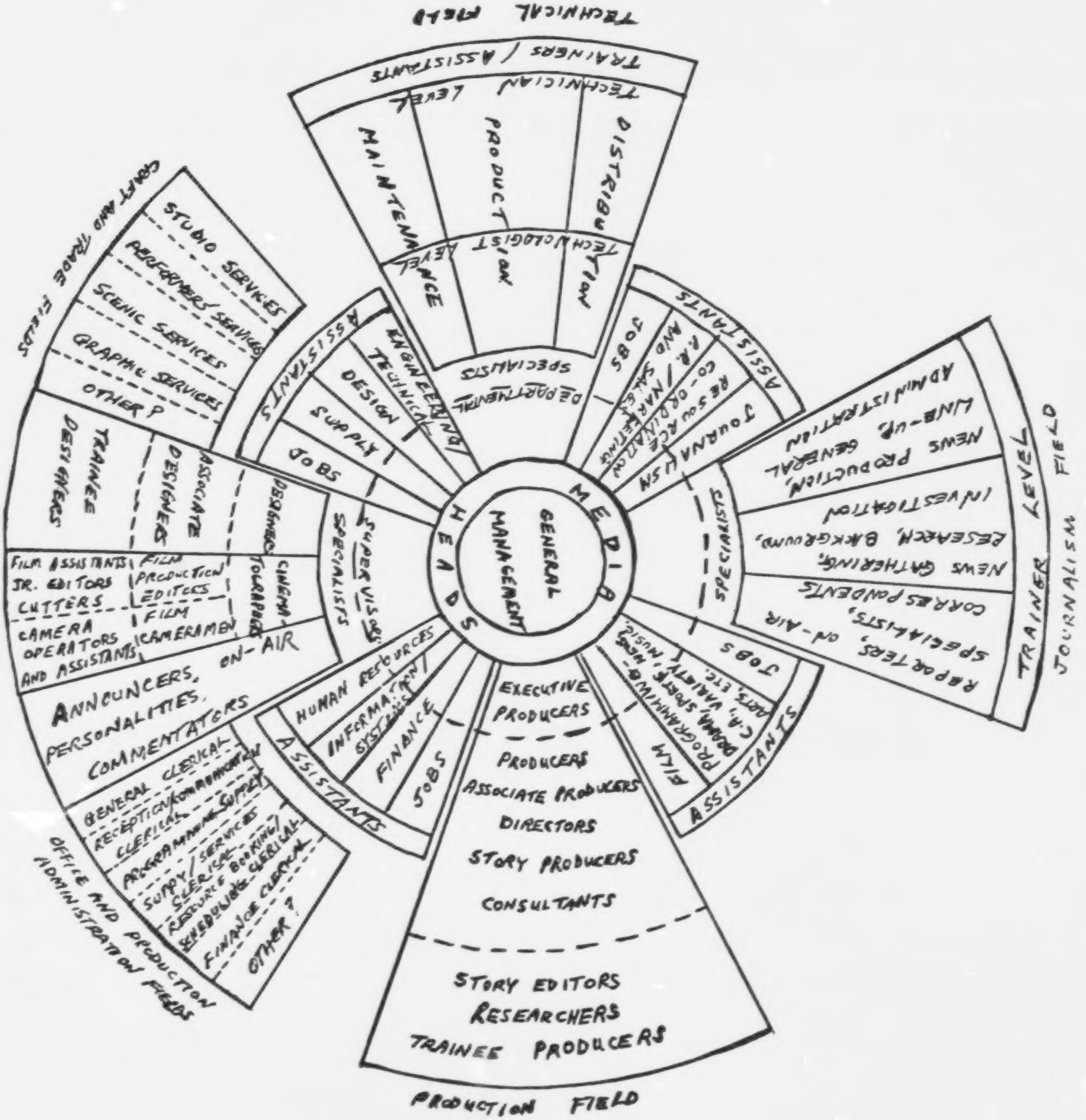
The manpower planning function has just entered its development phase, and has a long way to go. Nevertheless, the plan was in blueprint form as of summer 1978, and a series of fairly large scale projects were to be undertaken as opportunity, priority and resources permit. A project review committee has been formed to screen suggested activities and to monitor corporate policy - to ensure that no constraints appear elsewhere in the structure.

A recently developed major structure is best represented by a "wheel" that organizes the work force into the classification categories mentioned above. In October, 1978, the Management/Supervision (MS) levels of the chart were scheduled to engage in specific job definition, and to begin to correlate entry standards, training and development and compensation accordingly. (See Figure 4.) Discussions with the unions were beginning slowly. The visibility and impact of this classification is immense and will require careful negotiation. Initial prognosis appeared favourable from the point of view of the HR management.

The career-planning function has been focusing on the quality of p.a. appraisals, and fine-tuning the job-seeking and selection procedures. In addition, counselling sessions for low performers and others who request help are available through HRM staff in the regions. These counsellors report progress through the career planning manager at HQ in Toronto. He is also responsible for progress on the indicators regarding the employment status of women working at CBC. There is a full-time person responsible for the Equal Employment System at CBC.

FIGURE 4

PROFESSIONAL CLASSIFICATION WHEEL: A MANPOWER PLANNING FRAMEWORK; HOWARD SIMPSON, HUMAN RESOURCES DEPARTMENT, ESD, CBC, JULY, 1978


TECHNICAL FIELD
TRAINERS / ASSISTANTS
TECHNICIAN LEVEL
MAINTENANCE
PRODUCTION
DISTRIBUTION
TECHNOLOGIST LEVEL
DEPARTMENTAL SPECIALISTS
CRAFT AND TRADE FIELDS
STUDIO SERVICES
PERFORMERS' SERVICES
SCENIC SERVICES
GRAPHIC SERVICES
OTHER ?
TRAINEE DESIGNERS
ASSOCIATE DESIGNERS
DESIGNERS
FILM ASSISTANTS
JR. EDITORS
CUTTERS
FILM PRODUCTION EDITORS
CAMERA OPERATORS AND ASSISTANTS
FILM CAMERAMEN
CINEMATOGRAPHERS
ANNOUNCERS, ON-AIR PERSONALITIES, COMMENTATORS
ASSISTANTS
ENGINEERING / TECHNICAL
DESIGN
SUPPLY
JOBS
SUPERVISORS
SPECIALISTS
HEADS
GENERAL MANAGEMENT
MEDIA
JOBS
P.R. / MARKETING AND SALES
CO-ORDINATION
RESOURCE
JOURNALISM
ASSISTANTS
SPECIALISTS
NEWS PRODUCTION, LINE-UP, GENERAL ADMINISTRATION
INVESTIGATION
NEWS GATHERING, RESEARCH, BACKGROUND,
REPORTERS, SPECIALISTS, ON-AIR CORRESPONDENTS
TRAINER LEVEL
JOURNALISM FIELD
JOBS
FILM
PROGRAMMING - NEWS, SPORTS, DRAMA, C.A., VARIETY, MUSIC, ARTS, ETC.
ASSISTANTS
HUMAN RESOURCES
INFORMATION / SYSTEMS
FINANCE
JOBS
ASSISTANTS
EXECUTIVE PRODUCERS
PRODUCERS
ASSOCIATE PRODUCERS
DIRECTORS
STORY PRODUCERS
CONSULTANTS
STORY EDITORS
RESEARCHERS
TRAINEE PRODUCERS
PRODUCTION FIELD
GENERAL CLERICAL
RECEPTION/COMMUNICATION CLERICAL
PROGRAMMING SUPPLY
SUPPLY / SERVICES CLERICAL
RESOURCE BOOKING / SCHEDULING CLERICAL
FINANCE CLERICAL
OTHER ?
OFFICE AND PRODUCTION ADMINISTRATION FIELDS

The manpower planning and career development functions are closely interrelated with the training functions. For example, the data from the job descriptions provide the basis for setting training and development standards that go with different skill areas. Likewise, the "red dot" training needs analyses provide a check to the validity and reliability of the job description data.

A "red dot" analysis refers to a skill breakdown chart of jobs against which present skills and training needs are mapped, and for which training resources are developed. Where an employee feels he is adequate in one skill area, this is marked with a red dot in the appropriate square. A blank indicates a training need. The gaps in the skills and knowledge of a department staff are thus clearly and visually portrayed and indicate what training needs are particularly important. The manpower information inventory impacts on training priorities and budgets each year by identifying shortages of competent people for required jobs.

All three of the above areas could be discussed in more detail and descriptions of industrial relations, compensations and recruitment would reveal a similar thoroughness of design. It is the support and integration of the HRM system that is important as we examine the training function in more detail, but we do regret not having the resources to represent these subsystems in detail.

CHAPTER FOUR

TRAINING IN THE CBC (ESD)

Introduction

Training plays a critical part in the management of CBC's human resources. Over the past few years it has acted not only to meet the immediate training needs of ESD, but has been used as a vehicle to build credibility and visibility for the developing model of Human Resources Management. In developing and organizing training to meet CBC's immediate needs, the trainers have attempted to take a long-term view as well by building up stocks of modularized and well-designed courses. It is their intention to create a library of training that will be available for the development of staff in the years to come and to ensure that the rich culture of learning in any broadcasting organization is supported by top-quality professional training materials.

Both the quality and quantity of training have undergone considerable changes in the last years. The content of training is now designed against the needs of the organization and those who work for it. "The CBC has a responsibility both to itself and to its staff not to put them into a position of failure" (CBC trainer).

The quantity of training has increased from under 4,000 person days in 1974/5 to almost 18,000 person days in 1978/9. An interesting feature of CBC training is the influence of the Canadian Armed Forces approach. Many of the basic processes of designing and providing the training are amended from the CAF training manuals. Much of the vocabulary of training and the systematic approach to training starts from the CAF. There have been a good number of HRD staff whose careers include experience in the

Armed Forces, and a few have returned to take the CAF Training Standards Course.

Within many of the professions directly concerned with program production there is a considerable turnover in staff as they move to other broadcasting companies, theatres and film production, both in Canada and elsewhere. Given the transient nature of much employment in this area, this was often in both the CBC's and the individual's best interests. Other experience was seen as important in an individual's professional development. And when he or she returned to another short-term contract with the CBC, it would be to the Corporation's benefit.

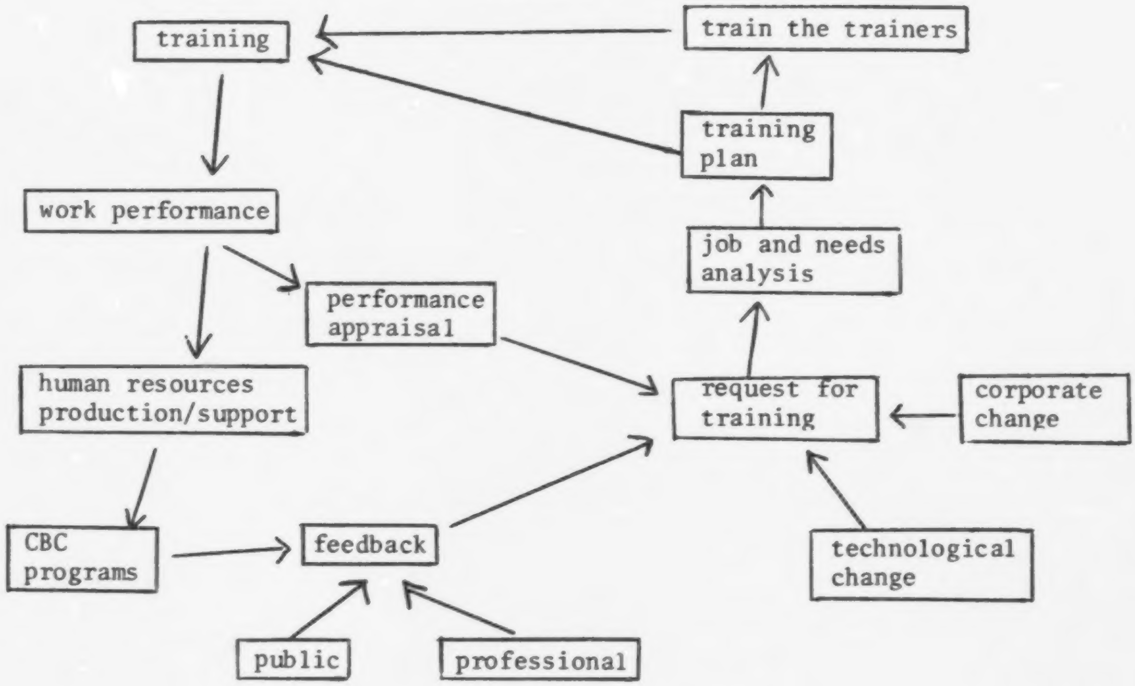
The training and development obtained through the CBC and then used elsewhere in Canada was also seen as indirectly assisting to "provide for a continuing expression of Canadian identity" (Broadcasting Act: 1967-8:1,3, (g)(iv)). However, such magnaminity is expensive and it is almost paradoxical that the CBC, in contrast to many American stations where the training is 'sink or swim', is considered a training ground for Hollywood. However, CBC itself has substantial training needs.

The Training System

"You get trained because you need it, you want it and we think you need it" (CBC trainer).

One of the critical features of training is its link to work performance, especially in producing programs. This loop is described below:

FIGURE 5


training
train the trainers
training plan
work performance
job and needs analysis
performance appraisal
human resources production/support
request for training
corporate change
CBC programs
feedback
technological change
public
professional

The Sources of Request for Training

There are thus four sources of requests to the training department for assistance:

1) From feedback from either a professional or the public audience. An example of this was the criticism of professional (print) journalists about the quality of the news broadcasts.

2) From the information provided by any performance appraisal system. For example, in doing a red dot analysis of audio technical staff, their weakness in the Master Control Room part of their work soon emerged.

3) From technological change. With the introduction of ENG (Electrical News Gathering) and the scope it offered to instantly play back footage without laboratory processing and its superior portability over more traditional cameras, the nature of a news cameraman's job changed.

4) From corporate change. Some aspects of the HRM model itself have been implemented by training in the various HRM systems and methods and the rationale behind them (e.g. performance appraisals, computer systems and management planning systems).

With its present resources, the training department is unable to meet all the demands for training that these various sources produce. The process by which these are appraised has been discussed above, but is reviewed briefly here.

1. Interviews on training needs of regional departments are done by local HRM staff (October).
2. Line managers fill out planning documents for next fiscal year. Copy goes to local HRM staff.
3. Local HRM staff corroborates training needs and requests with line managers.
4. Final HRM regional goals, plans, budget requests completed by HRM Regional Director.
5. Regional HRM budget is considered by council of senior Regional HR Managers, along with other budget plans.

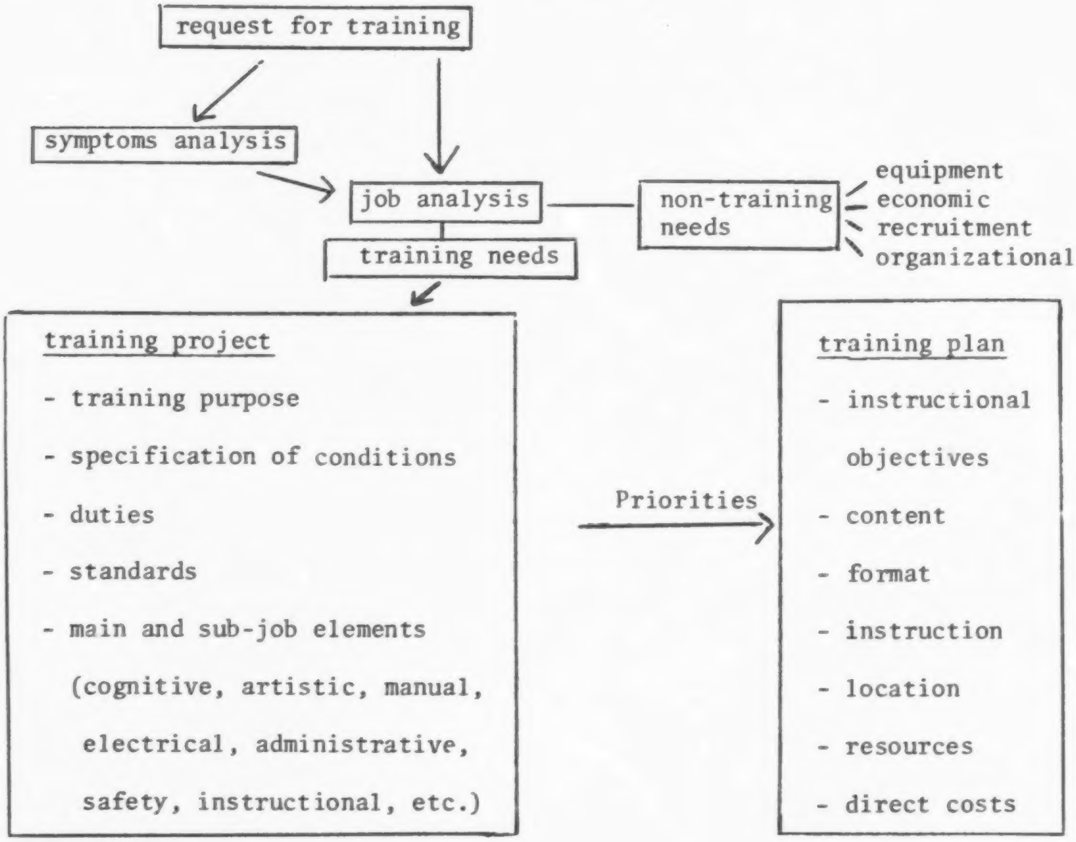
6. Regional plans and budgets reviewed by HRM HQ staff in Toronto. Program and budget requests are devised to create a divisional plan to submit for overall HRM budget. HRM Director submits this budget to General Manager. If revisions are necessary, they are done at HQ level.

There appears to be a problem in the annual approach to determining training needs and the close interface of the Training Department with requests from the field. Presumably, the Training Department deals with (and thus budgets its resources with a margin) the expected "unexpected" requests, and sees this role as necessary in its units.

Training Needs Analysis

The stages between the request for specific training and the production of a training plan are illustrated below.

FIGURE 6


request for training
symptoms analysis
job analysis
non-training needs
equipment
economic
recruitment
organizational
training needs
training project
- training purpose
- specification of conditions
- duties
- standards
- main and sub-job elements (cognitive, artistic, manual, electrical, administrative, safety, instructional, etc.)
Priorities
training plan
- instructional objectives
- content
- format
- instruction
- location
- resources
- direct costs

A substantial research component to discover training and non-training needs is the first step in designing the training. Two of the HQ trainers reported the needs analysis stage to be unexpected by those who requested training. The Department's first assumption has often been to imagine that training would be provided by a course from an outside institution.

Instead, they sat down with two or three trainers and described the symptoms behind their request (for instance, trouble with the police over the transportation of guns and explosives by special effects staff) and analyzed in detail the tasks their staff have to perform, some of which require training.

If the essence of training problems were always apparent from their appearance, there would be no need for such research. When bringing in the trainers to assist the television news programming, the obvious training request was news writing. But a detailed analysis of what newsmen did and the constraints they faced in producing good television news stories revealed a range of problems. First, for example, when they arrived on the scene of a story their first task was to decide what shots they wanted the cameraman to take. They performed the role, in other words, not of a journalist but of a director.

Second, when reporting a story face-to-face to the camera, a journalist is a performer and must be sensitive to his dress and facial expressions. Dark glasses or a loud shirt are inappropriate dress for television. (An example of a constraint faced by newsmen was that although they shot in colour, in some cases their monitors operated in black and white.)

Out of this analysis came, therefore, not only the anticipated need for training in writing for non-print media journalism, but also for training in film direction, in performance, in appreciation of lighting requirements, equipment needs - the provision of colour monitors, administrative needs - decision-making practices that allowed more involvement.

The Design of Training

This is usually all sewn together into a training project. A typical example of a training design is exemplified by excerpts from the CBC lighting training project:

a) A Purpose - eg. to update and enhance the skills and knowledge of all CBC lighting technicians
   - to divisionally standardize lighting techniques, methods and equipment

b) 16 Conditions under which lighting technicians will work
   - eg. a basic work week of 40 hours
   - access and availability of all requisite lighting equipment and materials

c) 25 Duties involved in the position
   - eg. attends rehearsals to determine and finalize lighting requirements
   - performs routine maintenance

d) 13 Standards to which the duties will be done
   - eg. meets all deadlines
   - assures minimum wastage of consumable material

e) breaks the job into 10 main job and 23 sub-job elements

main job element	sub-element	content
cognitive	plans, blueprints and schematics	reading, interpreting and correcting
artistic	visual effects	creative lighting for mood

Armed with this firm description of what the job actually involves, the department and trainers construct a training plan for the lighting program in this instance (see Figure 7.).

Stages of Development

The training division identify 17 stages in developing a training program. How they represent the process of moving from "identifying job fields" to "beginning regional training" is shown in Figure 8. This shows clearly the learning interplay between research consultations and educational method.

The Delivery of Training

The provision of training can be divided into two main methods:

1) On-the-job-training (OJT): A common type of OJT is what a CBC trainer described as, "controlled, self-paced" instruction which is designed to be done alone between work assignments. These self-paced courses are presently in their infancy but eventually the CBC trainers plan to develop a range of technical and other courses in a multi-media format of cassette tape and accompanying notes. The modules of the courses will match the categories of the red dot performance appraisal; as areas of job weakness are identified, individual employees will be expected to study the module in their "down-time" and, within a specific time period, remedy those areas of inadequate performance.

   Another means of on-the-job training is by supervision. Such supervisors will have been through part of the "train the trainers" program.

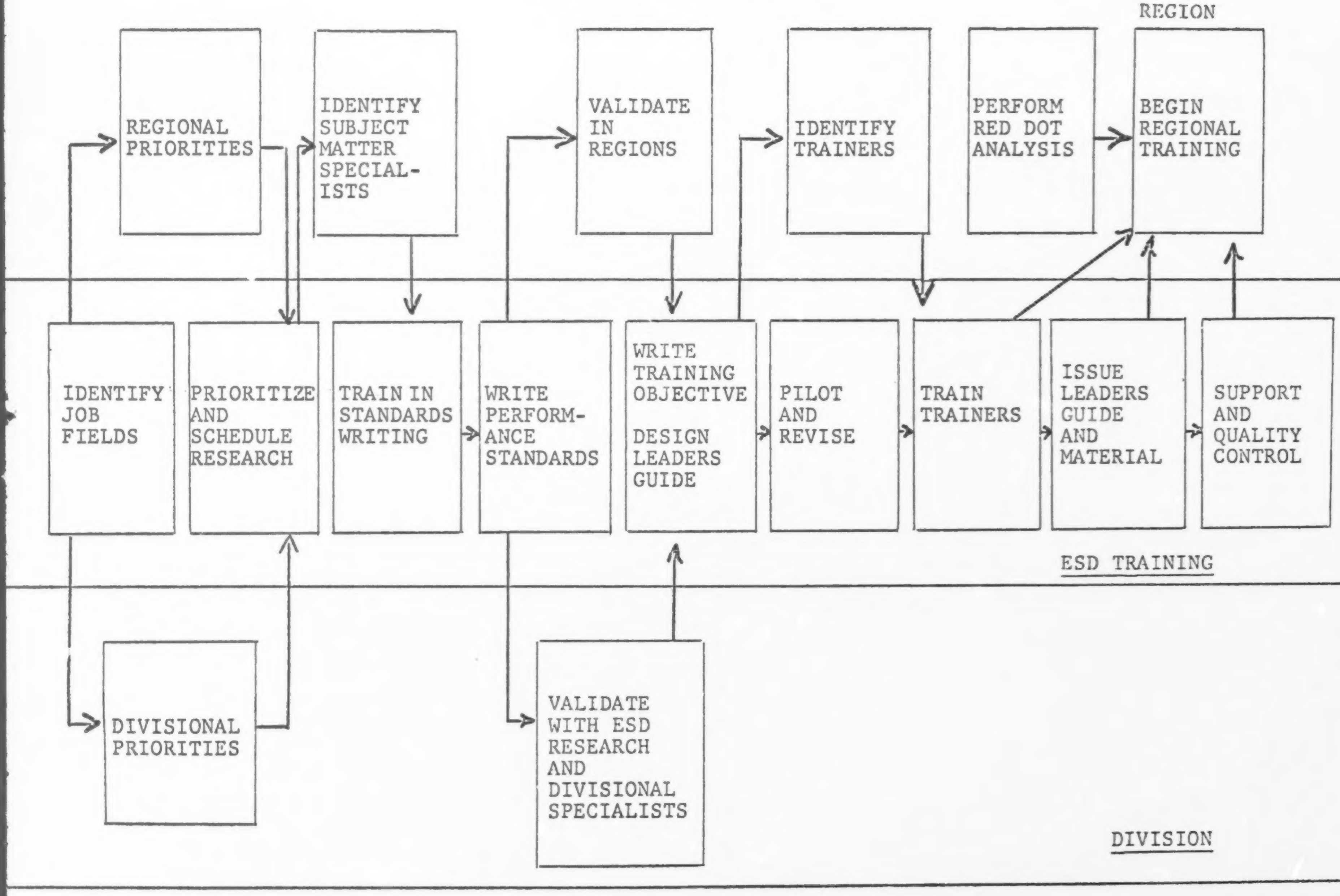
FIGURE 7

TRAINING PLAN FOR LIGHTING PROGRAM

SUBJECT	INSTRUCTIONAL OBJECTIVES	CONTENT	FORMAT	INS
Lighting Equipment	3. From prepared lists, participants will correctly match lamp code numbers with lighting fixtures. Participants will demonstrate (practically) the ability to change lamps, following the correct procedures. Participants will demonstrate correct hanging, adjustment and focus of fixtures; in addition, the attachment and adjustment of: a) barndoors and shutters b) diffusers c) scrims d) flags and cutters e) gobos f) pattern projection devices. From provided examples, participants will correctly identify cable types and usage.	Beam control - focus, barndoors, shutters, diffusers, scrims, pattern projection, flags, cutters, gobos Hanging procedures Set hangers Cabling Grid, batten and pedestal (as facilities available)	Lectures, demonstrations, and practical exercises	R. J.

FIGURE 8

DEVELOPMENT OF A TRAINING PROGRAM

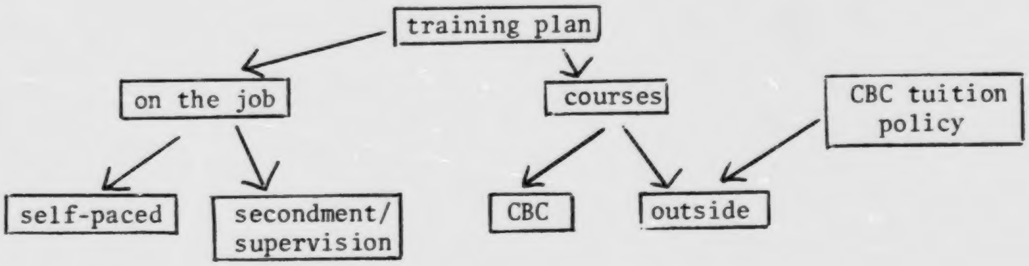

REGION
REGIONAL PRIORITIES
IDENTIFY SUBJECT MATTER SPECIALISTS
VALIDATE IN REGIONS
IDENTIFY TRAINERS
PERFORM RED DOT ANALYSIS
BEGIN REGIONAL TRAINING
IDENTIFY JOB FIELDS
PRIORITIZE AND SCHEDULE RESEARCH
TRAIN IN STANDARDS WRITING
WRITE PERFORMANCE STANDARDS
WRITE TRAINING OBJECTIVE
DESIGN LEADERS GUIDE
PILOT AND REVISE
TRAIN TRAINERS
ISSUE LEADERS GUIDE AND MATERIAL
SUPPORT AND QUALITY CONTROL
ESD TRAINING
DIVISIONAL PRIORITIES
VALIDATE WITH ESD RESEARCH AND DIVISIONAL SPECIALISTS
DIVISION

One might envisage that broadcasting is like working in a technological and artistic laboratory with all kinds of opportunities to experiment and learn. However, as the costs of television have increased, for instance, with the introduction of colour there has been less opportunity for inexperienced staff to learn by practising with broadcasting and production equipment. The decreasing variety of programs has also contributed to a reduction of opportunities to learn experientially.

2) Training Courses: These can be sub-divided into those provided by the CBC and those provided by other training institutions.

Schematically, this can be shown as:

FIGURE 9



The "make or buy" decision (whether to develop and use its own courses or to look outside the CBC's resources) appears to depend on a variety of factors.

First, and foremost, is cost. The cost of developing the course against the number of employees likely to use it, the cost of doing without the training while the course is developed, and the cost of buying must all be weighed together.

In considering outside alternatives, the corporation must judge how closely a course does or can fit what it needs. It must also judge whether this is an area in which it wishes to develop training competency.

For example, some CBC employees need to be able to drive an automobile or special truck and therefore require driving lessons. In this case, the provision of driving instruction by the CBC would be expensive, the alternatives offered by professional driving schools are quite adequate and it is not an area directly related to broadcasting. The decision is clearly to buy.

Another reason to buy is excellence. Last year, for example, the CBC brought the BBC course to Canada. After the second import in February 1979, the training department plans to offer their own courses which they feel will be as good as the BBC program, and perhaps better for their use because they have been made specifically to fit in with CBC practice.

The Training Budget

Training currently accounts for just over 1/5th of the total human resources management budget. (1,100,000 dollars out of 4,700,000 dollars.)

The dispersion of the CBC over Canada makes it a "geographical nightmare" for training and training budgets.

At present, between half and three-quarters of the total training budget is expended on costs arising from the geographical dispersion of training. This includes either the travel of trainers or trainees to training courses and their accommodation costs and expense allowances while away from their homes. An indication of how training costs vary between those offered centrally and those run on a decentralized basis can be gathered from the 1977/78 ESD training cost estimates. The average cost per person day of training for decentralized courses was $13.00 ($104,000 providing 7,800 days of training). This compares very favourably with the $80.00 per person day for centrally run courses (7,470 person days of training at a cost of $627,000). This latter training includes training for television, radio management and supervision, "Train the Trainers" program and the retirement program.

With the shift in training from dealing predominantly with management to technical skills of television and radio, the costs of equipment and facilities for training have increased and can go up to 400 dollars per man day. Generally, however, per capita costs have come down.

Largely from increased economies of scale, the cost per person day of training has almost halved in the five years covered by these figures.

FIGURE 10

TRAINING COSTS*

YEAR	MAN DAYS IN TRAINING	COST ($000)	PER CAPITA DAYS OF TRAINING	AVERAGE COST PER TRAINING DAY
74/5	3891	486	0.68	93
75/6	4189	753	.73	118
76/7	10375	761	1.81	73
77/8	15632	1076	2.61	68
78/9	17615	986	2.94	56

* Figures provided in overhead slide by Les Lawrence, Director of Training, May 1978.

The Evaluation of Training

It is generally hard for a viewer or listener to see or hear the benefits of training in broadcasting. They relate to subliminal and evolutionary improvements. The CBC, however, can know about and evaluate training through indicators such as the cost of production, the man days of facilities consumed, the flexibility of staff, the size and participation of the audience and the scope of programs (e.g. more programs in more places on a wider range of subjects).

Close contact with the line in the development and testing of the OJT packages are sources of evaluation on specific courses. End of course feedback is collected in the management courses, and the research department is currently working with David Riesman, responsible for the Management Training Course, to develop a longer-term process. Reduced cost and increased number of training days per person are indicators used by the

HRM Director and Training Director to mark progress.

New Employees

Virtually no one joins the CBC who steps in and does the job immediately. When we inquired about how the CBC orientates or trains a new arrival, we were referred to two films - "Spider's Web" and "Inside Out". They displayed both the wide variety of tasks and occupations involved in a television documentary and the geographical nature of Canada.

A two-day orientation program is given each new employee, including information on:

1) CBC - the film "Spider's Web".
2) ESD - the film "Inside Out".
3) The region - what is the regional situation; what are the specifics of the job and local regulations. This includes a handbook and a tour of operations.
4) The job - a meeting with the supervisor to deal with "nuts and bolts" of getting started, e.g. location of lockers.

The HRD staff are working with a few of the various schools of communication in Canada (and there are many more per capital than in the U.S.A.) to negotiate a syllabus that will mean their top graduates have basic skills useful in CBC. The job specifications being developed by manpower planning can be provided to the schools to indicate the skills and levels of competence expected at the CBC.

Training and Technology

Electronic news gathering (ENG) provides news at a lower cost, with a higher resolution, with no delay for chemical development and permits instantaneous play-back. News editing then shifts from a physical to a digital act. Consequently, new demands are made on news film editors. For instance, the number of editing decisions in any period of time substantially increases. Related to technological changes are the changes in the "perceptual spectrum". Thus changes come about in a display of information, pacing, style, and camera techniques (e.g. in cinema verité).

The technical training centre works out of Montreal, and we have not interviewed the staff of this centre. Since this was a department serving both English and French divisions, it was regrettably omitted from our study.

Train the Trainers

In July 1978, the HRM staff complement consisted of:

ESD professional trainers	14
regional OJT instructors (pt. time)	64
regional HRM co-ordinators	7
TOTAL	85

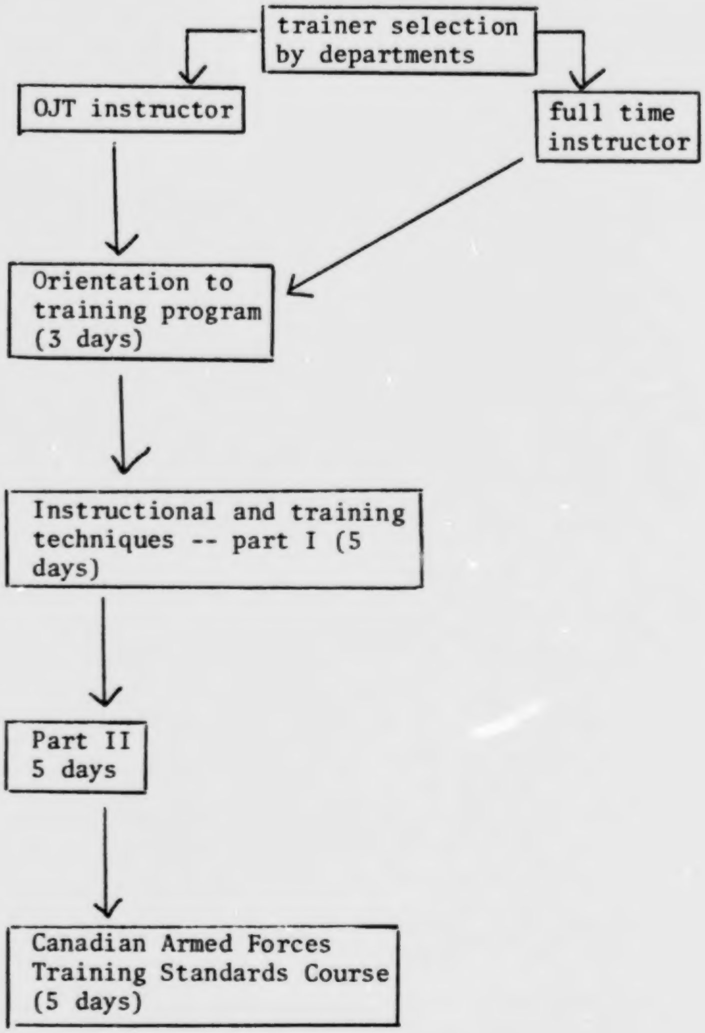
ESD training staff estimate that this represents about one-third of their total personnel requirements. The priority for fiscal 1978/9 is to increase the number of OJT instructors to 136 (a 113% increase), which will be done through the provision of 455 man days of training at a cost of $10,000. (This includes only materials, and expenses of trainers.)

The "Train the Trainers" program aids to (1) reduce the average costs of training, (2) increase the number of people in the organization who can deliver training and (3) increase the capacity of each of the seven regions to handle appropriate training, from design to provision stages.

The four courses for trainers used by the ESD are shown on the following page, together with a summary of their content and a diagram of their linkage to each other.

FIGURE 11

A MODEL FOR TRAIN THE TRAINERS PROGRAM


trainer selection by departments
OJT instructor
full time instructor
Orientation to training program (3 days)
Instructional and training techniques -- part I (5 days)
Part II 5 days
Canadian Armed Forces Training Standards Course (5 days)

Training Content

Orientation

- prepare short training assignment
- critique by peers and instructor

ITT - Part I

- how adults learn
- demonstrations
- project work
- introduction to needs analysis

ITT - Part II

- scrutinize own OJT program
- return to needs analysis

- CAF Instructional Preparation System

Training and Creativity

Is a good cameraman or make-up artist made or born? Can you make a mediocre performer better by training?

The CBC training department's position was explained as this: Creativity comes from within. It requires a motivation to be committed to maximize one's own self-potential. While creativity cannot be taught, training can assist its development. Training can provide skills and thus allow an individual to concentrate on being creative rather than, for example, technical. Training also provides an opportunity for a concentrated analysis of one's own work and provides personal benchmarks. Training can also act to encourage constant self-evaluation. Finally, to the degree that training provides ideas it acts as an agent of dispersion of creativity.

CHAPTER FIVE

CONCLUSION AND COMMENTARY

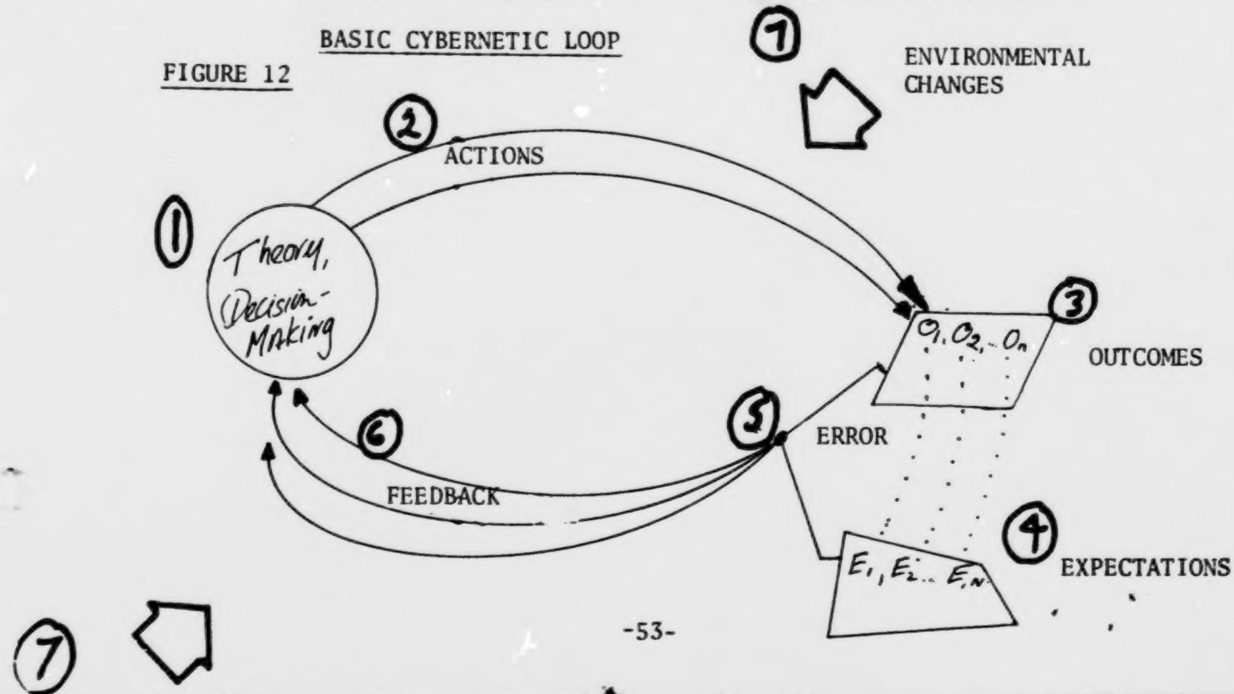
Vulnerabilities of the System

The following sections include suggestions for further inquiry which we hope might serve as a "safety check" for members in the organization, and for other readers as indicator of the larger perspectives within which the present activities are evolving.

There are generic vulnerabilities inherent in any system. Since much of this study sought to understand the model (the theory) behind human resource development, and to report current activities as part of the larger plan, we have chosen a system model used by Donald Schon and Chris Argyris to critique the system. Figure 4 is a single loop that describes the iterative functioning of a system toward goals. (1) A model of the world acting as a decision-making body exists (e.g. policy, procedures, goals, objectives). Actions are carried out (2) to deliver outcomes (3) that may or may not be identical to expectations (4). This gap in outcomes is called error (5), and the feedback (6) to the decision-making source (1) leads to another set of decisions and actions. The cycle is repeated constantly. This general model can be used at any level of the system to pinpoint where corrections must be made.

BASIC CYBERNETIC LOOP

FIGURE 12



Error in outcomes is what generates review of the system. The error in outcomes may be due to rather simple misjudgements, technical weaknesses (single-loop factors), or it may be attributable to malfunctions embedded in the cybernetic loop. Schon and Argyris[1] list several factors that may cause error. Investigating these sources of error entails double-loop learning.

1) Mistaken assumptions in the theory: e.g., the CBC HRM Department might assume that most managers have the ability to unlearn old behaviours, and base its actions on "teaching" them how to use the new system.*

2) Inconsistency between elements of the theory (differing parts of the organization might have different policies which when put side by side lead to different conclusions): e.g., there might be an inconsistency between using the performance appraisals both for developmental and promotional purposes.

3) Incongruity between what is decided and what is actually done: e.g., how closely are annual plans followed in the field.

4) Ambiguity and uncertainty as to what exactly is expected and exactly what happened. The vagueness of results following training courses is a good example of the difficulty in evaluation when the results are indeterminate.

5) Distortion and noise in the feedback channels.

6) Changes in the environment: e.g., the CRTC Hearing in October may have changed several of the conditions under which the system performs.

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[1] Schon, Donald and Argyris, Chris. Organizational Learning. Reading, Mass.: Addison-Wesley, 1978.

* Note these are examples given for illustration purposes only; they are not meant to indicate that this is, in fact, the case.

To be a learning system, a system has to be able to examine these meta-assumptions about itself. Our experience with the HRM at CBC was limited, but our impression was that they were examining double-loop dimensions. For example, the staff meets twice a year to work through difficulties with the implementation plan and to choose next steps; the minutes from these discussions contain "a lot of meat".

One area we could not examine is the congruity between what is said in these forums and on paper, and what is actually done in the field. It is clear that the proponents of the system are quite vocal and influential; it may be that their influence may lead to a certain gap between headquarter's view of reality and what is really happening in the field. When double-loop inquiry is not supported (as in most organizations), individuals who perceive errors and causes of errors that entail questioning assumptions, behaviour, or incompatible expectations, etc., are put in a double bind. Naming the error violates important "norms", and not signalling the error violates another set of norms. The result is camouflage of the error (i.e., down-playing its importance), and camouflage of the camouflage (i.e. raising a fictitious issue). At CBC (ESD), this possibility is offset by the fact that a lot of data are collected regularly on outcomes, there are regular discussions between line managers and HRM staff, and action is taken around discrepancies. This level of learning is difficult to create and maintain in an organization, and we were impressed with what appears to be a double-loop system at CBC within the Human Resource Management system. This meta-system is crucial to the development of an effective organization.

Line-Staff Relations

Another area of vulnerability for a human resource system is its relationships with the line. Line-staff relations are susceptible to breakdowns, and usually it is the line that has the inside track on organization priorities. Although the "control" role of the Human Resource system at the division level is quite strong, it still is in the "housekeeping" category as far as end-product is concerned.

The very power and effectiveness of the HRM system may have created an underground of resistance that will surface in times of budget cuts and undermine the creation of the overall system.

The "terrain" in which these struggles are fought depends on the quality of the senior leadership at CBC. The departure of the Assistant General Manager could signal a possible warning sign. Having had no access to senior management in our study, this remark is simply an observation on a potential difficulty.

The staff system is also vulnerable to the line in terms of the skills of the latter to carry out its required roles in managing human resources. Producers may not be motivated or capable of changing their behaviour in an on-the-job situation sufficient to make the systems work. Performance appraisals are a good example of the dependency of the HRM system on the line. Much work is being done on this dimension in terms of working with the p.a. systems closely, with Gurney visiting senior managers and showing them how the technology works, with training the HRM staff in problem-solving skills so that they can assume responsibility for line organization development.

Vulnerability of Innovation

Fads come and go...empires rise and fall. There is some likelihood that initially people thought that HRM technology would go away - like earlier waves of computerized management. However, the system does seem to be anchored enough to survive major changes. The excitement and adventure of the new system must now mature into constant attention to improving the effectiveness of the system. If the information system on which it rests is not constantly tested for its accuracy and congruency with the field, it may become a "system" that is removed from the behaviour in the organization. The headquarter's approach to the system currently accentuates this possibility. Again, we cannot do more than mention this since we did not interview other regions, or other parts of the organization.

Finally, there is a vulnerability through its dependence on the strong leadership of the current HRM Director. This is not to say that there are not other people who are talented and capable - but rather that the system is identified with him, and he has fought many of the battles for it. This dependence is probably necessary, and hopefully transitional. Nevertheless, if something were to happen to him, the system would be shaky.

The Organization and the Individual

Most of the rhetoric of the HRM system is concerned with increasing the effectiveness of the organization. It is a system of high control of the people in the organization, and the technologies it uses to manipulate the organization are complex and specialized. Arguments about its contribution to the "quality of life" at work can be made. We are not saying that they are or are not the case - but the perceptions of the people in the organization are important. For example, how will the research presently being conducted to identify the characteristics that predict success at CBC be viewed, and used? What are the consequences for individuals of a performance appraisal system that identifies the "low fliers" whose jobs can be eliminated from the organization without loss of productivity? The ongoing relationship with the union will be critical.

The ethics and professional responsibility of the HR staff come into play, and complex decisions with major impact on people must be exercised within an organizational milieu which is currently under considerable pressure to produce better for less. It may be a difficult situation for the HRM system to navigate, and the stress on CBC personnel may generate new difficulties for the Human Resources Management.

The HRM system at CBC is in a high profile situation. It is holistic, data-based, and well-managed. It is in a complex turbulent environment, and its future is exciting and hopeful.

Some Comparisons of CBC with Bell Canada

The other system that has been reported in this series is the training department at Bell, 1977 vintage. Some elements are quite common to both systems:

1) The technology of individualized instruction is important to both training departments. More and more courses are being designed for self-paced learning, eliminating the need for having an instructor present.

2) The importance and sophistication of "front-end analysis" is increasing. The detailed training standards, PRAXIS analysis, and methods department work at Bell are mirrored by the military training model underlying CBC, English Services Division.

3) Both organizations are in a centralized mode of operations, separating design and delivery responsibilities in their system.

There are some clear differences:

1) At CBC, all HR matters are integrated through one department, while at Bell the recruitment, training, methods, human resource department, and compensation, are located in different departments.

2) HRD as an organization control centre appears much stronger in CBC - partly because of the higher importance of people in the end-product than the highly engineering-based service of Bell. Training at Bell is oriented very much to serving the line, and does not have a reciprocal "control" function on the line staff (i.e., a two-way relationship) the way the HRM staff have.

Comparison With Formal Educational Systems

One of the purposes of these case studies is to share across sectors the conditions and methods used by educators. Clearly, the CBC situation puts some unique pressures on the management of human resources - of which training is a cornerstone.

1) The "real-time" accountability of the organization poses a pressure on the learning system at CBC that must be dealt with continually. The resources at stake lead to large budgets, and a surveying of the best

technology currently at use. Thus, the rich milieu, the pressure to succeed, leads to more risks, more innovation, more correcting and fine-tuning, such that the level of expertise in the learning systems in large organizations is advancing rapidly.

2) Universities may have highly-talented individuals, but they do not have highly-developed systems. In organizations, talented people pass through to other responsibilities continually and quickly - thus, capability has to be built into the structure of an open system.

3) The final evaluation of the courses rests with the participants, to whom the instructors are accountable; feedback is quite direct. The system is constantly fighting for budgets which require the demonstration of cost-effective success - the "education" system has to draw dollars from other parts of the organization, from senior managers who are not "educators" by spirit or discipline.

4) The "management of learning" is evident in the attention to development, and correction in and around the system. It appears that the HRM Department is developing a team that learns about and investigates its own activities. This is a very powerful tradition to build, and a sense of mission is much clearer in CBC than in academic environments.

These descriptions suggest the kind of preparation about which individuals who wish to move into a high-class HRM system ought to be thinking. Little of the focus of the staff is concentrated on presentation skills, and much more on their ability to handle line-staff relationships, planning, evaluating, information system, etc.

The sophistication of these systems is encouraging for the adult education faculties who have focused on learning as the key perspective, and argue for a better relationship with management areas of study.

APPENDIX ONE

A PERFORMANCE APPRAISAL FORM FOR THE HRM DEPARTMENT

SECTION 1 PERFORMANCE ACTIVITIES

DISTRIBUTION WHITE - Local H R YELLOW - ESD H R PINK - Employee

TEMP 175 (3/78) P 1 of 6

NAME

S I N

JOB FAMILY — HUMAN RESOURCES

TITLE

DEPT

Please use extra space provided (dots) to specify and rate additional activities in each area

ADDITIONAL COMMENTS

If you used columns UNSATISFACTORY OR NEEDS IMPROVEMENT, you should indicate what corrective action has been or will be taken to improve employee's performance (e.g. counselling, on-the-job or formal training, closer supervision, more time in job.)

If you used columns VERY GOOD OR OUTSTANDING, you should list some incident or example of employee's behaviour that justify your decision (e.g. Mary's suggestion for contract negotiation was innovative and resulted in the elimination of a long standing problem.)

AREA	ACTIVITY	Activity is NOT REQUIRED for job	Performance and results are UNSATISFACTORY (Employee continually has difficulty meeting job requirements.)	Performance and results NEED IMPROVEMENT (Further development or action should enable employee to perform satisfactorily.)	Performance and results are ACCEPTABLE (Employee achieves expected level of performance.)	Performance and results are VERY GOOD (Employee performs beyond expected level.)	Performance and results are OUTSTANDING (Employee performs at an exceptional level and exceeds requirements of job.)	ADDITIONAL COMMENTS
GENERAL MANAGEMENT Plan	• Formulating the overall manpower requirements that will most effectively and economically meet							
	• divisional objectives							
	• regional objectives							
	• departmental objectives							
	• •							
Develop	• Developing H.R. policies and/or procedures for:							
	• employee selection							
	• equitable treatment							
	• career management							
	• employee compensation							
	• personnel research							
	• collective bargaining							
	• •							
Control	• Managing and controlling the activities of a department, region or division							
	• •							
Organize	• Organizing projects or plans							
	• •							
Implement	• Implementing and carrying out projects or plans							
	• staffing policy							
	• •							

SECTION 1 PERFORMANCE ACTIVITIES

DISTRIBUTION WHITE - Local H R YELLOW - ESD H R PINK - Employee

TEMP 175(3/78) P 2 of 6

NAME

S I N

JOB FAMILY — HUMAN RESOURCES

Please use extra space provided (dots) to specify and rate additional activities in each area

AREA	ACTIVITY	Activity is NOT REQUIRED for job	Performance and results are UNSATISFACTORY (Employee continually has difficulty meeting job requirements.)	Performance and results NEED IMPROVEMENT (Further development or action should enable employee to perform satisfactorily.)	Performance and results are ACCEPTABLE (Employee achieves expected level of performance.)	Performance and results are VERY GOOD (Employee performs beyond expected level.)	Performance and results are OUTSTANDING (Employee performs at an exceptional level and exceeds requirements of job.)	ADDITIONAL COMMENTS If you used columns UNSATISFACTORY OR NEEDS IMPROVEMENT, you should indicate what corrective action has been or will be taken to improve employee's performance (e.g. counselling, on-the-job or formal training, closer supervision, more time in job.) If you used columns VERY GOOD OR OUTSTANDING, you should list some incident or example of employee's behaviour that justify your decision (e.g. Mary's suggestion for contract negotiation was innovative and resulted in the elimination of a long standing problem.)
GENERAL MANAGEMENT Co-ordinate	• Co-ordinating the activities of others so that human resource projects or plans are carried out in an orderly manner							
	• •							
PEOPLE MANAGEMENT Supervise	• Supervise staff on a day-to-day basis							
	• •							
Staff Development	• Ensuring that staff are motivated and develop their potential							
	• •							
FINANCIAL Budget	• Preparing a budget							
	• Controlling a budget							
	• •							
COMMUNICATION Communicate	• Expressing ideas effectively and influencing decisions and actions of others							
	• •							
Advise	• Provides advice about:							
	• career problems							
	• personal problems							
	• industrial relations							
	• compensation							
	• training							

SECTION 1 PERFORMANCE ACTIVITIES

DISTRIBUTION WHITE - Local H R YELLOW - ESD H R PINK - Employee

TEMP 175 (3/78) P 3 of 6

NAME

S I N

JOB FAMILY — HUMAN RESOURCES

Please use extra space provided (dots) to specify and rate additional activities in each area

ADDITIONAL COMMENTS

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COMMUNICATION								
Advise	• benefits							
	• collective agreements							
	• •							
Write	• Writing detailed analytical reports • •							
OPERATIONAL								
Record	• Maintaining and organizing records on							
	• employment							
	• status							
	• leave and attendance							
	• overtime							
	• payroll preparation							
	•							
	•							
Employment and Placement	• Developing job profiles							
	• Interviewing applicants							
	• Evaluating applicants							
	• Maintaining candidate records							
	• Managing boards							
	• Orienting new employees							
	• Testing employees							
	• Analyzing turnover							
	• Identifying referrals							
	•							
	•							

SECTION 1 PERFORMANCE ACTIVITIES DISTRIBUTION WHITE - Local H.R. YELLOW - ESD H.R. PINK - Employee TEMP 175(3/78) P 5 of 6

NAME

S I N

JOB FAMILY — HUMAN RESOURCES

Please use extra space provided (dots) to specify and rate additional activities in each area

AREA	ACTIVITY	Activity is NOT REQUIRED for job	Performance and results are UNSATISFACTORY (Employee continually has difficulty meeting job requirements.)	Performance and results NEED IMPROVEMENT (Further development or action should enable employee to perform satisfactorily.)	Performance and results are ACCEPTABLE (Employee achieves expected level of performance.)	Performance and results are VERY GOOD (Employee performs beyond expected level.)	Performance and results are OUTSTANDING (Employee performs at an exceptional level and exceeds requirements of job.)	ADDITIONAL COMMENTS If you used columns UNSATISFACTORY OR NEEDS IMPROVEMENT, you should indicate what corrective action has been or will be taken to improve employee's performance (e.g. counselling, on-the-job or formal training, closer supervision, more time in job.) If you used columns VERY GOOD OR OUTSTANDING, you should list some incident or example of employee's behaviour that justify your decision (e.g. Mary's suggestion for contract negotiation was innovative and resulted in the elimination of a long standing problem.)
OPERATIONAL Industrial and Talent Relations	• Implementing decisions for grievances or arbitrations							
	• Participating in negotiations							
	• Participating in grievances or arbitration							
	•							
Manpower Planning and Research	• Analyzing job requirements							
	• Analyzing employee qualifications							
	• Analyzing manpower data and reports							
	• Forecasting employee capabilities							
	• Forecasting manpower requirements							
	• Conducting surveys and analyzing employee attitudes							
	• Identifying selection standards							
	• Identifying problem areas							
	• Identifying career paths							
	• Conducting surveys/pilot studies							
	• Follow-up on outcome of above							
	• •							
Career Management	• Matching available inventory to manpower requirements							
	• Planning development programs							
	• Developing performance standards							
	• Providing professional advice about career problems							
	• Identifying key and developmental positions							
	• Identifying potential performers							
	• Implementing and maintaining individual development programs							
	• Ensuring application of selection standards							
	•							

SECTION 1 PERFORMANCE ACTIVITIES

DISTRIBUTION WHITE - Local H R YELLOW - ESD H R PINK - Employee

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NAME

S I N

JOB FAMILY — HUMAN RESOURCES

Please use extra space provided (dots) to specify and rate additional activities in each area

AREA	ACTIVITY	Activity is NOT REQUIRED for job	Performance and results are UNSATISFACTORY (Employee continually has difficulty meeting job requirements)	Performance and results NEED IMPROVEMENT (Further development or action should enable employee to perform satisfactorily)	Performance and results are ACCEPTABLE (Employee achieves expected level of performance)	Performance and results are VERY GOOD (Employee performs beyond expected level)	Performance and results are OUTSTANDING (Employee performs at an exceptional level and exceeds requirements of job)	ADDITIONAL COMMENTS If you used columns UNSATISFACTORY OR NEEDS IMPROVEMENT, you should indicate what corrective action has been or will be taken to improve employee's performance (e g counselling, on-the-job or formal training, closer supervision, more time in job) If you used columns VERY GOOD OR OUTSTANDING, you should list some incident or example of employee's behaviour that justify your decision (e g Mary's suggestion for contract negotiation was innovative and resulted in the elimination of a long standing problem)
OPERATIONAL Organization Development	• Group decision making (identifying problems)							
	• Group problem solving							
	• Pressure and Arousal (making people aware of need for change)							
	• Intervention (being active in the group)							
	• Problem Diagnosis (objectively define problems)							
	• Invention of New Solutions							
	• Experiment with New Solutions							
	• Reinforcement of Positive Results							
	• • •							

SECTION 2: PERFORMANCE ABILITIES

S.I.N. ______________________

Name :

ABILITIES DISPLAYED IN PRESENT POSITION	Unsatisfactory	Needs Improvement	Acceptable	Very Good	Outstanding	ACTION TO BE TAKEN
Ability to influence the thinking, attitudes and activities of others so that they willingly direct their behaviour toward organizational objectives.						
Relates work performed to the Corporation's programming activities.						
Keeps informed and up-to-date in own area of expertise.						
Ability to meet deadlines.						
Shows initiative						
Innovation						
Considers cost-effectiveness of decisions.						
Works effectively with others.						
Capable of training others. (Specify areas).						

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S.I.N. ____________________

SECTION 3: ASSESSMENT

Name: ____________________

LENGTH OF TIME IN PRESENT JOB? ____________

WILLING TO RELOCATE? No ☐ Yes ☐ (Specific Locations?) ____________

MAJOR DUTIES OR OBJECTIVES OF POSITION	
CAREER ASPIRATIONS	
POTENTIAL FOR DEVELOPMENT IN PRESENT DEPARTMENT	
POTENTIAL FOR DEVELOPMENT OUTSIDE PRESENT DEPARTMENT	
CHANGES IN PERFORMANCE SINCE LAST APPRAISAL REVIEW OR ADDITIONAL COMMENTS	
ACTION TO BE TAKEN BY EMPLOYEE AND / OR ADDITIONAL COMMENTS BY EMPLOYEE	
ACTION TO BE TAKEN BY APPRAISER AND / OR ADDITIONAL COMMENTS BY APPRAISER	

We have discussed the essentials of this appraisal.

Date: ____________

Appraiser's Signature ____________________

Employee's Signature ____________________

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APPENDIX TWO

PERFORMANCE INDICATORS FOR HUMAN RESOURCES MANAGEMENT DEPARTMENT. ENGLISH SERVICES DIVISION: CANADIAN BROADCASTING CORPORATION, 1977

PERFORMANCE INDICATORS

Sunday evening, March 6, 1977, was spent in review of the Performance Indicators. There follows a list of indicators, their established definitions and reporting source.

Productivity

1. Man Days in Training
   - to include all training, whether initiated in the region, ESD, EHQ, H.O., on-the-job training, etc.
   - reporting source - Form 791, 792.

2. Time Loss (5 year average)
   - amount of lost time due to wildcats, study sessions, etc., reported as man days lost.
   - reporting source - HR Managers

3. Grievances Referred to National Level
   - self-explanatory
   - reporting source - HR Managers.(Regional)

4. MS Proportion Qualified for Promotion
   - MS personnel qualified and available for promotion, as a percentage.
   - reporting source - Staff Directors/Divisional Career Management/Regional HRM's to agree.

5. Workforce to Program Hours
   - self-explanatory
   - reporting source - HR Managers (Regional)

6. Under-Productive Employees
7. Distress Cases
   - #6 and #7 now combined
   - employees whose performance and/or behaviour restricts or prevents a department from achieving its objectives.
   - reporting source - Regional HRM's to Divisional Career Management.

7. Time Required to Fill MS/Producer Vacancies - Average Days

   - time span from date of request to fill to date of acceptance.
   - reporting source - HR staffing checklist

8. Equal Opportunity Promotion Index

   - distribution of males and females in MS by comparison of females weighted by MS level to males weighted by MS level.
   - reporting source - Divisional Career Management.

9. Equal Opportunity Participation Index

   - comparison of ratio of females to males in each region to ratio of females to males in local labour force.
   - reporting source - Divisional Career Management.

10. Equal Opportunity MS Compa Ratio

    - Compa ratio of women in regional management
      Compa ratio of men in regional management
    - reporting source - HR Managers (Regional)

11. Time to Process 396's - Days

    - from date request for change is received to date 396 is entered into terminal (or mailed).
    - reporting source - HR Managers (Regional)

Cost

1. Reduce Overtime Bill

   - by % of salary; percentage of total overtime hours
   - reporting source - HR Managers (Regional)

2. MS Compa Ratio

   - total MS salary standards divided by total MS actual salaries
   - reporting source - HR Managers (Regional)

Cost (continued)

3. Cost Union % of Salary
Contract Penalties (000)

- reduce penalty payments
- percentage of total penalty hours
- reporting source - HR Managers (Regional)

Overhead

2. Training $

- indirect cost - amount of HR staff time spent on training activities.
- reporting source - internal time reporting

- direct cost - dollars required to achieve number of participant days
- reporting source - regional budget printouts.

3. Manpower Planning

- per capita cost manpower planning, divisional indicator only.
- reporting source - divisional manpower planning.

4. Industrial & Talent Relations

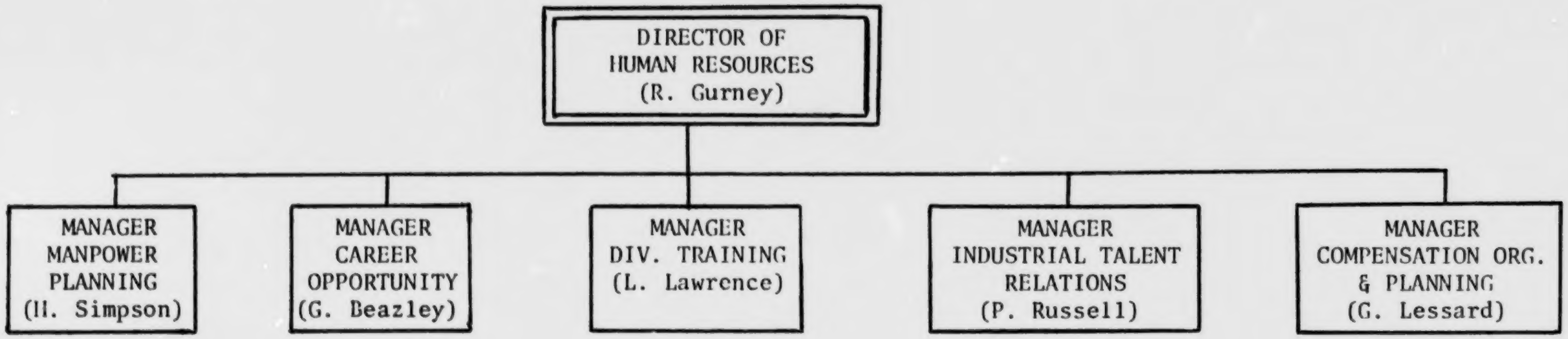
- self-explanatory
- reporting source - Regional HR Managers.

ACTION PLANS

Following Sunday evening's review of the Performance Indicators, it was apparent that the action plans as prepared by the regions required additional work. It was agreed that they would be revised based on Sunday's discussions and resubmitted to Bob Gurney by Friday, March 18, 1977.

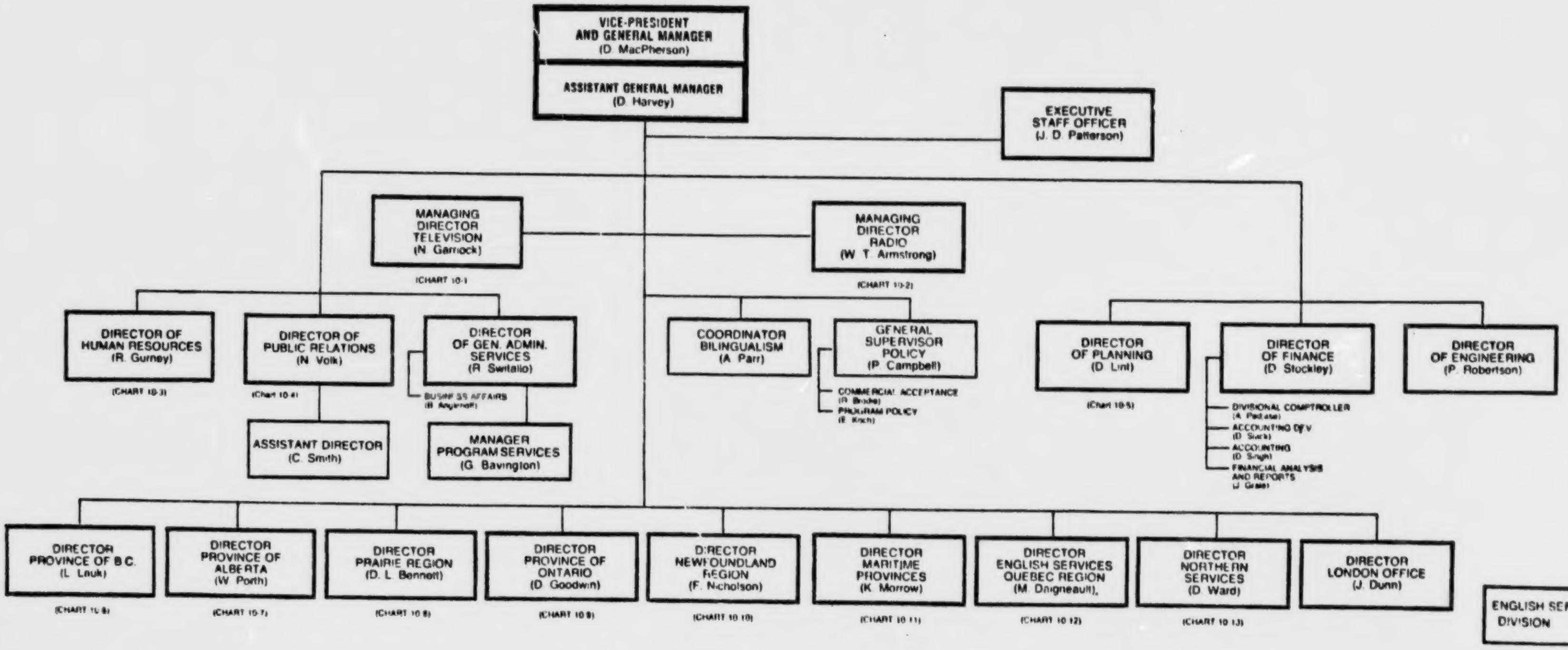
APPENDIX THREE

ORGANIZATION CHARTS: HUMAN RESOURCE MANAGEMENT, ENGLISH SERVICES DIVISION


DIRECTOR OF
HUMAN RESOURCES
(R. Gurney)
MANAGER
MANPOWER
PLANNING
(H. Simpson)
MANAGER
CAREER
OPPORTUNITY
(G. Beazley)
MANAGER
DIV. TRAINING
(L. Lawrence)
MANAGER
INDUSTRIAL TALENT
RELATIONS
(P. Russell)
MANAGER
COMPENSATION ORG.
& PLANNING
(G. Lessard)

ENGLISH SERVICES
DIVISION
HUMAN RESOURCES

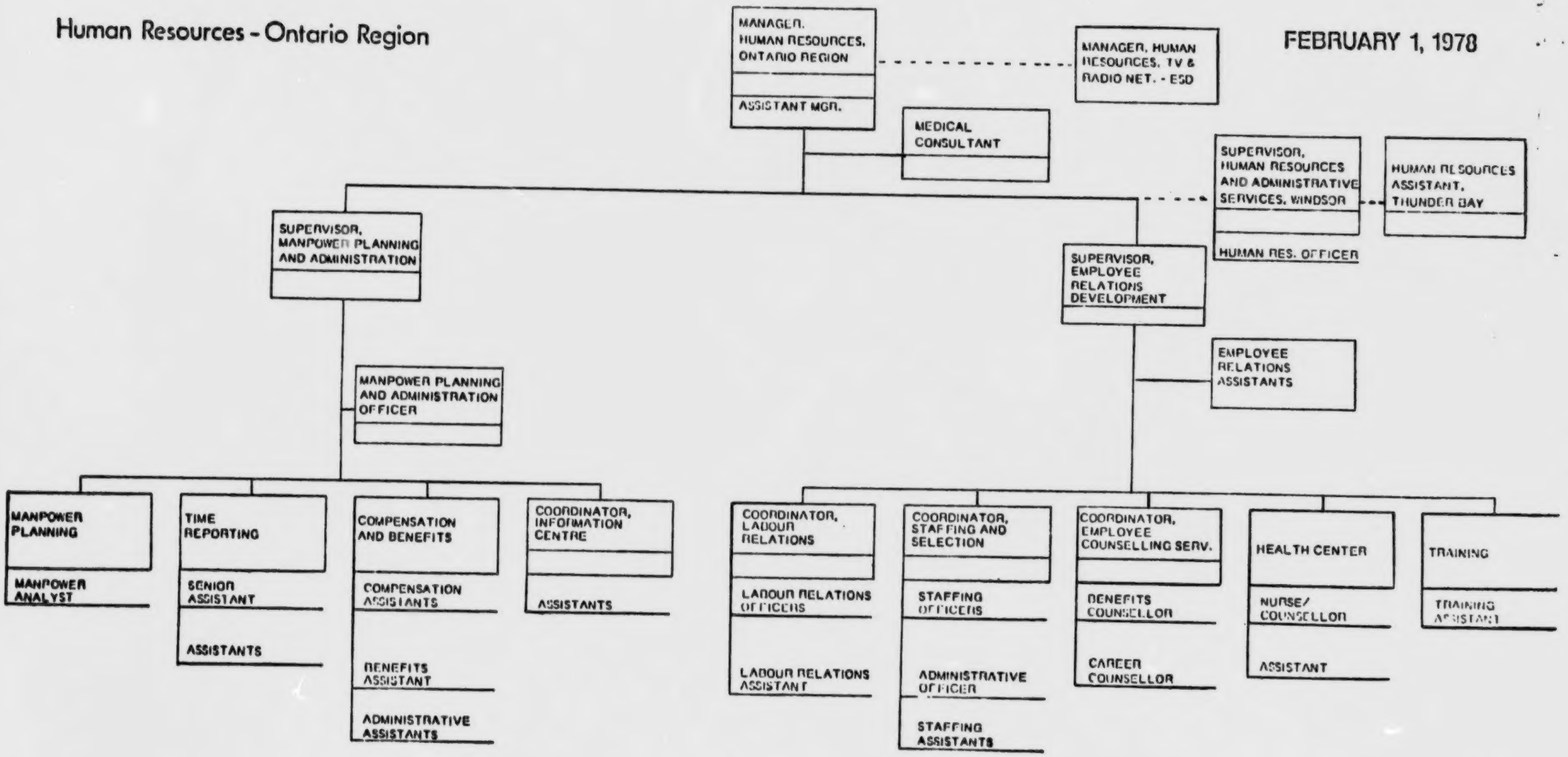
10-3


VICE-PRESIDENT AND GENERAL MANAGER (D. MacPherson)
ASSISTANT GENERAL MANAGER (D. Harvey)
EXECUTIVE STAFF OFFICER (J. D. Patterson)
MANAGING DIRECTOR TELEVISION (N. Garriock)
(CHART 10-1)
MANAGING DIRECTOR RADIO (W. T. Armstrong)
(CHART 10-2)
DIRECTOR OF HUMAN RESOURCES (R. Gurney)
(CHART 10-3)
DIRECTOR OF PUBLIC RELATIONS (N. Volk)
(Chart 10-4)
ASSISTANT DIRECTOR (C. Smith)
DIRECTOR OF GEN. ADMIN. SERVICES (R. Switalio)
BUSINESS AFFAIRS (B. Angimoff)
MANAGER PROGRAM SERVICES (G. Bavington)
COORDINATOR BILINGUALISM (A. Parr)
GENERAL SUPERVISOR POLICY (P. Campbell)
COMMERCIAL ACCEPTANCE (R. Brodie)
PROGRAM POLICY (E. Koch)
DIRECTOR OF PLANNING (D. Lint)
(Chart 10-5)
DIRECTOR OF FINANCE (D. Stockley)
DIVISIONAL COMPTROLLER (A. Pedasai)
ACCOUNTING DEV (D. Stark)
ACCOUNTING (D. Singh)
FINANCIAL ANALYSIS AND REPORTS (J. Grale)
DIRECTOR OF ENGINEERING (P. Robertson)
DIRECTOR PROVINCE OF B.C. (L. Lauk)
(CHART 10-6)
DIRECTOR PROVINCE OF ALBERTA (W. Porth)
(CHART 10-7)
DIRECTOR PRAIRIE REGION (D. L. Bennett)
(CHART 10-8)
DIRECTOR PROVINCE OF ONTARIO (D. Goodwin)
(CHART 10-9)
DIRECTOR NEWFOUNDLAND REGION (F. Nicholson)
(CHART 10-10)
DIRECTOR MARITIME PROVINCES (K. Morrow)
(CHART 10-11)
DIRECTOR ENGLISH SERVICES QUEBEC REGION (M. Daigneault)
(CHART 10-12)
DIRECTOR NORTHERN SERVICES (D. Ward)
(CHART 10-13)
DIRECTOR LONDON OFFICE (J. Dunn)

ENGLISH SERVICES DIVISION

Human Resources - Ontario Region

FEBRUARY 1, 1978


MANAGER, HUMAN RESOURCES, ONTARIO REGION
ASSISTANT MGR.
MANAGER, HUMAN RESOURCES, TV & RADIO NET. - ESD
MEDICAL CONSULTANT
SUPERVISOR, HUMAN RESOURCES AND ADMINISTRATIVE SERVICES, WINDSOR
HUMAN RES. OFFICER
HUMAN RESOURCES ASSISTANT, THUNDER BAY
SUPERVISOR, MANPOWER PLANNING AND ADMINISTRATION
MANPOWER PLANNING AND ADMINISTRATION OFFICER
SUPERVISOR, EMPLOYEE RELATIONS DEVELOPMENT
EMPLOYEE RELATIONS ASSISTANTS
MANPOWER PLANNING
MANPOWER ANALYST
TIME REPORTING
SENIOR ASSISTANT
ASSISTANTS
COMPENSATION AND BENEFITS
COMPENSATION ASSISTANTS
BENEFITS ASSISTANT
ADMINISTRATIVE ASSISTANTS
COORDINATOR, INFORMATION CENTRE
ASSISTANTS
COORDINATOR, LABOUR RELATIONS
LABOUR RELATIONS OFFICERS
LABOUR RELATIONS ASSISTANT
COORDINATOR, STAFFING AND SELECTION
STAFFING OFFICERS
ADMINISTRATIVE OFFICER
STAFFING ASSISTANTS
COORDINATOR, EMPLOYEE COUNSELLING SERV.
BENEFITS COUNSELLOR
CAREER COUNSELLOR
HEALTH CENTER
NURSE/ COUNSELLOR
ASSISTANT
TRAINING
TRAINING ASSISTANT

PART D

LEARNING IN ORGANIZATIONS

Four Case Studies of Education in Industry:
A Model of Information Exchange

CASE STUDY NUMBER THREE

MARKS AND SPENCER (CANADA)

by

Alan Thomas, Project Director
Reg Herman, Principal Investigator
David Beatty, Principal Investigator
Diana Ironside, Principal Investigator
Jutta Keylwerth, Research Officer
Sonja Davie, Research Officer

An Internally Funded Research Project
of the Department of Adult Education
The Ontario Institute for Studies in Education
252 Bloor Street West
Toronto, Ontario
1980

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FOREWORD

"Marks and Spencer" represents the third in a series of four studies of Education and Training in Organizations devoted to non-educational objectives. The other three studies are devoted to Bell Canada (Ontario Region), The Canadian Broadcasting Corporation, and Wardair. The intent of each of the studies is to be as simply descriptive as possible. It is a field in which theory and a good deal of "piecemeal" analysis abounds, while there is very little detailed description of specific programs in specific organizations. We have known, since as early as the 1950's, that large educational and training programs, involving millions of person-hours and millions of dollars existed entirely outside the formal educational system, but we have known extremely little about them.

The importance of knowing about them in detail has several dimensions. First, the types of education and training programs represented by these four studies now embody the largest educational enterprise in the society, surpassing all of the resources and energy represented by the more visible and familiar public system. Sheer size and influence then, is one reason for needing to know something more about some of them at least. Second, if we are to develop genuine, effective and humane systems of "continuing" or "recurrent" education, among which our citizens can move with ease and deliberation, then it is of considerable importance that components of various sub-systems become reasonably familiar. Third, the managers and designers of these systems are facing problems to do with learning. Their solutions ought to be as widely available to others in comparable, or even quite different, situations, who are also facing problems associated with learning. Finally, it will be impossible to write the history of education in Canada in the second half of the twentieth century without including and understanding these programs. With few exceptions, it is not in their nature to develop detailed records of their activities.

Marks and Spencer differs from the other three organizations in several respects. It is a smaller, more labour-intensive organization than the others and it is a "branch-plant" of a British organization, enjoying an initial period of very rapid growth. The matter of origin is of some significance since one of our assumptions is that the education and training program is a fundamental, if often unspectacular, "shaping" influence in any organization. We were interested in the degree to which both the form and content of the training program reflected the inevitable clash between the inherited attitudes and expectations of the parent company and the demands of the new environment. One would expect to find that clash most intensely focussed around the training program, as indeed, we did.

The dynamics of all the programs examined have been predominantly those of constant change, innovation, and development. In contrast to many public systems where stability and predictability are the normal characteristics, these systems depend on change. We have come to accept, with some resignation, that by the time our reports are complete, some part or parts of the systems described will have altered in both content and organization. Despite this inevitability, we believe that having described it accurately as it was maintains the purpose of this undertaking.

Therefore, the rate of change and development to be found in Marks and Spencer's training program is only partly due to the vigour and energy associated with being a young, new company in Canada. It is also, we are discovering, peculiarly characteristic of all such programs in all such organizations; perhaps because learning is so intimately associated with and dependent on novelty, it is essential for its organizational embodiment to be in a constant state of change.

Of particular note in the Marks and Spencer system is the combination of training and education with the personnel functions: hiring, appraisals, pensions, "corrective interviews", and all the unavoidable paperwork associated with pensions, promotions, and hiring, etc. housed in the same department, and managed by the same people as education and training. It would be easy to conclude on the basis of this study and two of the other three, that selection, promotion, education and training are inseparable aspects of personnel; while all the other functions usually associated with it are no more than housekeeping.

The training structure is clearly affected by geography, at least in comparison with the parent company on which, for obvious reasons, they draw so heavily. Despite the degree of "insularity" which seems evident in the reliance on U.K. developed materials, and in the relatively slight dependence on external Canadian resources, the revision of these materials to suit Canadian circumstances, Canadian language, and Canadian attitudes, is a constant part of the training task.

No clear pattern of the potential for training careers within the company has yet emerged. The interaction of training and personnel would suggest a relatively easy movement in and out of training responsibilities for some time to come. That combination, plus some organizational necessities, appears to be leading to the inclusion of clearly stated training responsibilities in a number of other supervisory and administrative positions.

It is clear that despite some special circumstances of growth and size, Marks and Spencer exhibits some characteristics common to the other three organizations.

Time is a dependent variable. Instead of learning being defined or confined by specific segments of time (academic years, terms, semesters, etc.) in which a certain amount of subject matter is mastered or one fails, the individual, within some limits, is allowed the time necessary to master the skill or knowledge.

Secondly, the order of evaluation is revised when compared with formal systems. In the formal systems the student passes or fails. If too many students fail some fault may be found with the teaching, and finally the program may be revised. In these systems it is the program that is first questioned, then the teacher. Exceptionally few students fail. The point is that individuals should learn to do jobs, or fulfill roles, not that some standard of competence be applied within arbitrary time limits.

It is clear to us that there is much to be learned from educational activities undertaken in these settings. Without pressing the comparisons too strenuously, we have tried to make the descriptions intelligible to at least three audiences: the organization itself, other similar organizations, and public educational agencies. By seeing and understanding learning in contrasting settings, we may come a little closer to understanding its true nature.

We are indebted to Marks and Spencer for their generous cooperation, particularly to Mr. James McPake, and Ms. Christine Morris. The interviews were undertaken by Jutta Keylwerth and Alan Thomas, and the manuscript was prepared by Jutta Keylwerth.

The entire project, "Case Studies in Education in Industry", was financed by the Ontario Institute for Studies in Education and directed by Alan M. Thomas, Chairman, Department of Adult Education. The principal investigators were David Beatty, Reg Herman and Diana Ironside. The research officers were Jutta Keylwerth and Sonja Davie, and much assistance was given by graduate students Alan Etherington, Jacob Schneid, and Darrel Simmons.

CHAPTER I

DATA GATHERING

Like the preceding two case studies of education in industry (Bell Canada and CBC), the present study of staff training programs in Marks and Spencer is intended to be of a descriptive, rather than evaluative nature. The British retail chain was selected by reason of comparison: training occurs not only in large, high-technology organizations, but also in labour-intensive ones of moderate size.

Initial contact with the organization was established early in January of 1978. A meeting with two Marks and Spencer representatives (our main contacts throughout) - Mr. James JcPake, Director of Personnel, and Miss Christine Morris, Personnel Manager - and our research team took place in August. At that time we toured head office as a form of introduction to Marks and Spencer; agreement was reached on a time frame for the study; it was decided specifically which persons in the company we should interview; and an interview schedule was drawn up.

Between September 14th and December 12th we conducted a total of 9 open-ended interviews of an average 2 hours duration. All but two converations were tape-recorded; notes were taken for backup purposes.

Personnel department staff at the Canadian subsidiary are responsible for training as well, because the two functions are inseparably linked. (This is not the case with the parent company in the U.K.) Thus, our interviewees represent the whole spectrum of the personnel department at Marks and Spencer - from head office out to the field and into the stores.

Not only were our countless questions answered with openness and sincerity, but so much enthusiasm, such a deep snese of loyalty and dedication, of belonging to one large family, were generated that we came away from these interviews with a certain buoyancy in our steps.

In addition to utilizing the information gleaned from the interviews, we have also perused 1) a considerable number of training guides and support material with which we were provided, and 2) St. Michael: A History of Marks and Spencer, by Goronwy Rees.[1]

It must be borne in mind that a period of 3 to 6 months has elapsed since the conclusion of the interviews. A number of the proposed programs will, therefore, possibly have been designed and/or implemented in the meantime.

Staff Interviews

a. Head Office

James McPake - Personnel Executive
Christine Morris - Personnel Manager
Lorna Karn* - Assistant Personnel Manager
Jean Paumier - Head Office Staff Manageress
Maureen MacLeod* - Training Department

b. Stores

Gillian Quiney* - Area Staff Manageress
Elaine Martin - Area Staff Manageress
Gillian Whipp* - Area Staff Manageress
Joan Whitehead - Personnel Assistant, Yonge Street Store

---

[1] Revised Edition, (London: Pan Books Ltd., 1973).

* Four of the interviewees were either about to change, or had just changed positions:

Assistant Personnel Manager - from Area Staff Manageress

Training Department - from Area Staff Manageress

Area Staff Manageress - to Selection

Area Staff Manageress - from Training Department

Three of these had been in their new jobs only 2 weeks or less.

CHAPTER II

OVERVIEW OF THE ORGANIZATION

Background information of the company is provided in order to establish the context within which training occurs, and to set up a framework for discussion of Marks and Spencer training programs.

Marks and Spencer, one of Britain's largest retail chains, was started in 1884 when a Polish immigrant named Michael Marks set up a market stall in Leeds. He traded under the slogan "don't ask the price, it's a penny"; indeed, not one item in his Penny Bazaar cost more than a penny. By 1885 he had begun to establish permanent places in several northern towns. Nine years of expansion later, Tom Spencer became an equal partner in the business.

Michael Marks' son, Simon, was chairman of the firm for over 40 years. Lord Marks was succeeded as chairman by his friend, brother-in-law and partner, Lord Israel Sieff, who had until then been his joint managing director. Lord Sieff, on becoming president in 1967, was in turn succeeded by his brother, J. Edward Sieff. In 1972, Sir Marcus Sieff, son of Lord Sieff, was appointed chairman, while Edward Sieff accepted the office of president. At present, Marks and Spencer has a working board of directors. It is of great importance that all its members have seen long service with company, having moved up through the ranks, and that, consequently, they all share the same basic attitudes.[2]

From its humble beginnings to this day, the "colossus that is Marks and Spencer projects a history of unbroken merchandising success that is almost bewildering". This phenomenal success is based on a philosophy or policy which espouses:

---

[2] From the Introduction to Rees, Goronwy, St. Michael: A History of Marks and Spencer, revised edition (London: Pan Books Ltd., 1973), xi, xii.

1. a generous benefit package for all Marks and Spencer employees;
2. a commitment to quality in all aspects of the business;
3. a not-a-hair-out-of place impeccability;
4. "dealing with complaints before they are ever made";
5. clearly signed and open displays;
6. a minimum of paperwork;
7. distrust of computers;
8. a deep sense of responsibility for the employee's welfare and well-being.

To elaborate on some of the more obscure points, in 1956 Simon Marks became very concerned about many wasteful and bureaucratic practices in the company. He decided to have all paperwork destroyed over-night. (Basic property and personnel files were left untouched.) Marks and Spencer staff were not to base their decisions on pieces and bits of paper, but were to return to the grassroots of the business. This elimination process led to increased productivity and individual involvement. There is an ongoing committee that every now and then conducts a poll on paperwork; it has the authority to destroy a system and to bring it back to the basics.

Marks and Spencer executives conducted a 5-year study into the use of computers in the business. Computers are now only used for simple arithmetic. Basically all the decisions that will give a stock or sales trend are made by humans. Marks and Spencer still count their stock by hand regularly every 2 weeks; head office receives information every week on a piece of paper on how the lines are selling, what the stock position is, etc.

The Marks and Spencer chain now comprises 252 stores in the British Isles, with stores in Paris, Brussels and Lyon. Staff in the parent company numbers 40,000. At last count (December 1978) there were 58 Marks and Spencer stores in Canada - from Dartmouth to Victoria. The Canadian operation has a staff of 2000: 1800 in stores and 200 in head office. In the stores, 100 (out of 1800) are management staff; the ratio of full-time to part-time staff is 50:50. The organization is highly head-office oriented. All pricing decisions - even regarding sale prices - are made at head office and are uniform across the country. Between 80 and 90 fairly major stores in the next 10 years is the maximum foreseen at this stage. The company is planning to enter the U.S. market eventually starting on the East Coast.

Training at Marks and Spencer is very much a characteristic of the fact that it is a high-growth company. The whole operation - in the U.K. and abroad - tends to generate an atmosphere of a "positive pushing forward" of the business and, therefore, of the individual. Careful manpower planning is the secret. Planned progression along established steps sets Marks and Spencer apart from other retailers who overstaff at the bottom - with the ensuing problem of boredom. Marks and Spencer manage very tightly; they are carefully, but sensibly, staffed. Three reasons were given for this:

1. sensible economics
2. offers clear progression to employees
3. a belief that people under pressure work better

The board and senior executive are always "kicking our business about. We tend to tear the whole thing apart and rebuild it". Internally it looks as if this were a tremendous waste of time and effort, but in fact it keeps the business growing - both in terms of expansion and volume.

In 1972 Marks and Spencer established a joint partnership with Peoples Department Stores of Montreal, to form St. Michael Shops of Canada. The first store was opened in Brampton. Three years later there were a total of 23 St. Michael shops; in addition, Marks and Spencer bought a controlling interest (56%) in Peoples Department Stores which included the Walkers and D'Allairds divisions. All former Walkers stores were integrated into the Marks and Spencer trading group.

The amalgamation process was received with mixed reactions; it was a difficult period filled with uncertainty. Differences in training and philosophy had to be resolved. (Walkers was a full department store including carpets, appliances, etc., and Marks and Spencer a retailer in the restricted specialty range.) The total conversion program lasted 1 year; integration was completed in August/September 1976, and the company began trading under the Marks and Spencer name.

During 1977, 19 stores in small towns or in the original downtown locations were closed (staff were offered employment in other stores), while 7 were opened in busy regional shopping malls. The good performance of mall stores* has led Marks and Spencer to concentrate in this field for the future expansion of the division.

More than 70% of textile merchandise sold in Canada under the St. Michael brand is now being produced by Canadian manufacturers. This target was achieved in only 2 years. The combination with food has been well received; Canadian shoppers are accepting the "slippers next to cookies" philosophy. Much attention is devoted to the expansion of the present limited range of St. Michael foods which is selling well. Marks and Spencer are now developing Canadian produced foods and have had discussions with suppliers concerning recipes, quality and hygiene requirements.

---

* Marks and Spencer operate three types of stores: the mall store, the free-standing store (e.g. the main store on Yonge St.), and the tight-footed store which refers to volume (i.e. high return per square foot).

The move to a new market forced Marks and Spencer to take a completely new look at merchandising. Three significant changes have been introduced to adapt to the Canadian retail system: 1) fitting rooms in stores; 2) advertising; and 3) charge accounts.

Although Marks and Spencer has a structure, an attempt has been made to keep the difference between top and bottom as narrow as possible, leaving only a few strata in the middle. (2 years ago it was felt that Marks and Spencer in the U.K. had overstructured itself and many categories were eliminated.) This facilitates direct contact and ease and informality of communication between head office and stores which are the heart of the business.

The Canadian subsidiary of Marks and Spencer is indeed a flat organization (See Figure 1). Under the general direction of Sir Derek Rayner of the U. K. Board and the direction of the Alternate Director (Marks and Spencer, Canada), as well as the Company Secretary, the work at head office falls into 8 broad, yet well-defined and equally important categories:

1. Merchandising
2. Quality Control
3. Foods
4. Personnel

FIGURE 1

ORGANIZATION CHART

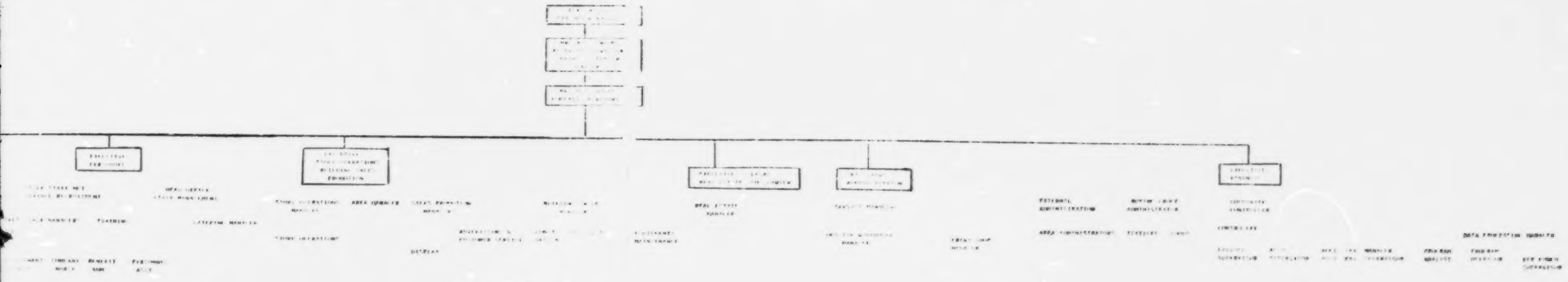
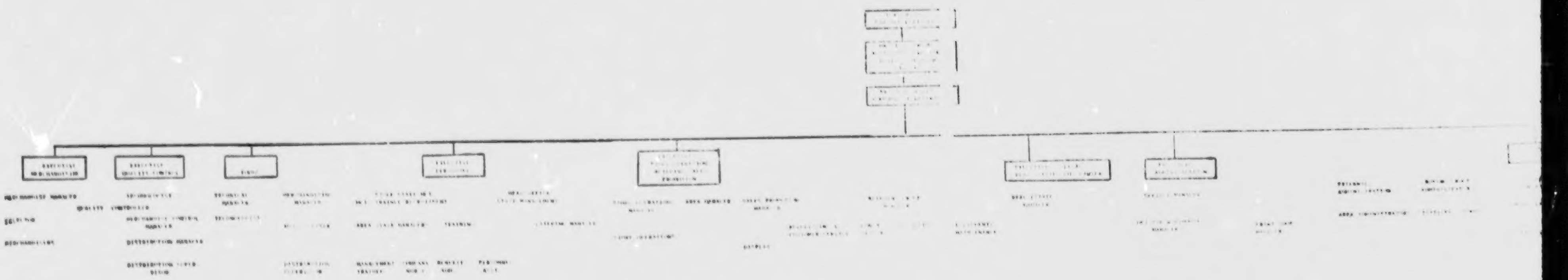

STORE OPERATIONS MANAGER
AREA MANAGER
SALES PROMOTION MANAGER
STORE OPERATIONS
DISPLAY
ADVERTISING & CUSTOMER SERVICE
TRAINING
CATERING MANAGER
REAL ESTATE MANAGER
EQUIPMENT MAINTENANCE
PERSONNEL ADMINISTRATION
AREA ADMINISTRATION
CORPORATE CONTROLLER
CONTROLLER
PROGRAM ANALYST
DATA PROCESSING MANAGER

FIGURE 1

ORGANIZATION CHART


MERCHANDISE MANAGERS
QUALITY CONTROLLER
MERCHANDISERS
DISTRIBUTION MANAGER
TRAINING
REAL ESTATE MANAGER
AREA ADMINISTRATION

5. Store Operations - Sales Promotion
6. Legal - Real Estate
7. Administration
8. Finance

Each group is headed by an executive.

Three clusters emerge:

1. Head office structure
2. Area structure
3. Store managers (assistant store managers in larger stores)

The head office structure is subdivided into 1) personnel, store operations, administration, and 2) merchandise procuring, selection and distribution.

"Area structure" refers to the four area teams who stay in the field and travel. Each team consists of 3 senior managers, an area manager, a staff manageress*, and an area administrator. The area manager reports to store operations; the area staff manageress to the area manager and to the personnel director (on technical grounds), but more directly to the personnel manager, her immediate supervisor; the area administrator is responsible to the administration executive.

This type of structure can serve an organization 100 times the size of the Canadian outlet, i.e., British Marks and Spencer stores. It is a very flexible system.

Every annual statement to shareholders by the chairman, currently Sir Marcus Sieff, contains a tribute to the staff. The following extract from the 1977 Annual Report is typical:

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* This staff category is described in detail in Chapter V.

> "We are fortunate in having high calibre staff. Each person is treated as an individual with prospects of a worthwhile career commensurate with his or her abilities; there is a general willingness at all levels to accept responsibility and obligations; staff stability, productivity, and loyalty are high."

Four geographic divisions have emerged from a recent reorganization; they constitute the "Marks and Spencer map of Canada":

1. B.C. and Alberta
2. Western Ontario (West of Highway 10)
3. Downtown Toronto North to Winnipeg
4. Scarborough to Dartmouth, N.S.

Concomitant with the change from 5 to 4 areas, area teams were reduced from 6 to 4. This means that area staff manageresses now have as many as 450 employees to administer. Meetings have been held to discuss the implications.

Some reasons for the reorganization were:

1. Area teams can be based in Toronto, from where nearly the whole business is being run.
2. Closing 19 stores had created in imbalance.
3. Formerly some areas had 2 manageresses; this caused overlapping which in turn created problems.
4. In 1975/76 area teams to a certain extent were operating stores for the managers. The quickest way to correct this situation was by taking away a whole area, and reducing the number of area staff managers.

Since the geographic areas have been enlarged, some of the training will have to be decentralized within those regions. The head of the personnel department felt that for instance, store managers should fulfill more of the training function on a day-to-day basis in the stores than they have done in the past. Some are already succeeding quite well at that. Other training changes are at the planning stage or have no doubt been implemented during the first 3 months of this year.

CHAPTER III

THE HISTORY AND DEVELOPMENT OF TRAINING AT MARKS AND SPENCER

The History of Training in the United Kingdom*

Training is, and for over 40 years has been an integral part of the company's everyday business life.

In the early thirties training was required for sales staff, for store managers and for "welfare" and catering staff. An organized training system was initiated in 1934 under the guidance of the newly established personnel department; it was a system of training in the stores for future store managers, conducted in 4 stages, each of which concluded with a written examination. A year or two later the lessons gained from theoretical instruction and practical experience were embodied in Marks and Spencer's first training manual. One paragraph is quoted here in order to illustrate the kind of relationship which the company encouraged between store management and sales staff:

> "The trainee should at all times remember that the greater part of knowledge has been assimilated from the supervisory staff. He must, therefore, be partial in his dealing with the sales assistants, particularly those new to the service of the company, and, cooperating with the staff manageress train them to do their work efficiently in the manner he requires. He must endeavour to earn the respect, and not fear, of the staff, remembering that familiarity is not at all necessary for the promotion of happy relations between himself and the staff he

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* Summarized excerpts from St. Michael: A History of Marks and Spencer.

> controls. There should never be any necessity to "drive" the staff. A contented staff does not require to be driven to give its best."[3]

By 1939 there were nearly 500 men in training, which provided an adequate supply of store managers for years to come, but the outbreak of the war interrupted systematic training.

Training of the female staff in the stores began in 1935, when a training course for staff manageresses was instituted in Leeds. In 1938 a training centre for sales assistants was opened in Brixton, followed by additional training centres.

Organized training in catering under central direction and control was introduced in 1938; it provided the basis for the temporary expansion of the catering units during the war.

After the war it was necessary both to recruit and train new staff and to retrain members of the executive staff who had been absent on war service and found changed conditions on their return. Another urgent problem was to recreate a united and smoothly functioning head office organization the departments of which had been dispersed to the provinces. To provide for the most pressing needs, refresher courses were organized. By 1948 the immediate problems of retraining had been overcome. A new training curriculum was introduced requiring a course of study lasting from 18 months to 2 years.

Over the years, the same attitude of concern for the individual has been shown in the company's interest in welfare, as well as in its training policy. It is essential that all staff are aware of the principles on which this policy is based.

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[3] Ibid, p. 180.

> "Training at Marks and Spencer is designed to provide both practical experience and technical knowledge, and the opportunity for the individual to demonstrate and make the best of his particular abilities. It is a course of training in which everyone in the company shares, and aims especially at creating a common doctrine and a common language which will ensure that the company operates as an organic whole, animated by principles which are understood by all."[4]

Training in Canada

Marks and Spencer training programs in Canada are unstructured and unsophisticated. As the director of personnel expressed it, "we're light years away from what they're doing in the U.K.".

There is not such a conscious view of training for training's sake - training responds to a need in the business. Marks and Spencer are running an apprenticeship system: the practical, down-to-earth, on-the-job approach is stressed. (The head of the personnel department is mainly concerned about the creation of an environment or a series of environments in which a person learns under some brand of supervision.) Despite the fact that training in Canada is "primitive", the results are seen to be positive. Staff performance is deemed very satisfactory considering how little training they have received, "which comes back to leading the business by example and involvement, and repeating the same things over and over".

A short time after the Canadian subsidiary had been established, a person arrived from the U.K. firm to set up the personnel department, and to take charge of the training component. She acted as personnel manager for 1½ years before returning to Britain. During this time she trained and worked closely with the area staff manageresses who were opening stores in Western Canada; she organized the retraining program for former Walkers managers and provided assistance with integrating 3 Smith stores (part of the Walkers chain) in September 1975. Her "apprentices" included the present personnel manager who was being trained for this position.

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[4] Ibid, p. 248.

The British trainer used exclusively U.K. training materials for the integration program; the package contained films, slides, handouts, mathematical exercises and an outline of the company's history. Marks and Spencer employees were given on-the-job training: she taught them the business on a day-to-day basis in the stores, and through discussions.

Thus far new store openings have taken precedence; it is, therefore, understandable that the volume of training has not been growing quite at same rate as the company.

The other side of training is recruiting. Marks and Spencer (Canada) prefers to hire staff without previous retail experience. One of the considerations when hiring is a balance of both mature and young staff. Applicants are screened in an interview; the selection process does not involve administering a questionnaire; instead, selection is based on "cues and intuitive guesses". The director of personnel, the personnel manager, the area staff manageresses, and the personnel assistant in the Yonge St. store are involved in recruitment. In the case of management trainee selection, the personnel manager conducts the initial interviews; the second one is chaired by the director. Two management people from head office and the area teams are present. Because of the difficulty of management interviewing, "it is better not to have a set pattern (i.e. selection team)".

Training Materials

Marks and Spencer are not yet at the stage of being able to provide new materials that deal with Canadian situations. Programmed courses (with slides and films) from the U.K. are being adapted and "Canadianized" by changing the terminology.

The script which accompanies slides stays in the original version. It is, therefore, not uncommon to come across a dialogue such as the one excerpted from the initial training guide:

The Customer's Point of View

Customer: Can you tell me where girdles are, please?

Sales Assistant: I'm on foods, love, you'll have to ask someone else.

Customer: Now here on earth do I pay? Damn, there's a queue at the till!

Individual departments are responsible for rewriting the U.K. materials. The literature is then regularly updated and revised. (A training guide may have to be rewritten three or four times because policies are still constantly changing.)

Two training programs from the U.K. have met with great success. One, the sales program, has been used in Canada for some time. It is administered in 2 one-hour sessions, and consists of a questionnaire which tests the sales assistant's ability to serve a customer and her knowledge of merchandise. The "Training Techniques" course is highly regarded by interviewees who took it in the U.K. It teaches staff management trainees 1) how to assess training needs and 2) how to translate such assessments into training objectives. Two main techniques are treated: 1) leading group discussion; 2) leading group instruction. Aids such as tape recorders, movies, slides complement the package. Until now, this course has been available only in the U.K., but training staff here are optimistic that the Canadian adaptation of the guide will be ready for use shortly.

As mentioned before, much of the business does not rely on formal training; the Canadian approach tends to be more relaxed in contrast to a very regimented one in the U.K. Consequently, training guides are kept basic, simple, uncomplicated. (For example, the merchanidser's manual is 3 pages long.)

Guides are directed to the trainer. Essential topics to be covered by the trainee are given in the form of a check list. A time structure is usually suggested. "The subject order is not important as long as the training program is logical and flexible enough to meet individual needs and progress."[*]

Make-Or-Buy Decisions

Most "make-or-buy" decisions in training are made in favour of

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[*] For a list of training guides and support materials made available to us, see Appendix A. Contents of individual guides are summarized as to length of training (where suggested), subjects covered and procedures to be followed.

"make". One unproductive experience with a "buy" decision convinced the personnel manager that buying was not valuable for Marks and Spencer - at least not as far as purely theoretical "train the trainer" courses were concerned.

The course, entitled "Training in Business", was bought from Humber C.A.A.T. and attended by all area staff manageresses. Diverse opinions on this "venture outside" were expressed during the interviews. By comparison, the course on training techniques in the U.K. was deemed simpler, more valuable to the job and more informative.

Other useful courses were mentioned by interviewees who had taken them while in the employ of Marks and Spencer in the U.K.[*]:

1. The quality control training course
2. A pre-retirement education program attended by supervisors and managers
3. A one-week residential course to discuss management concepts, run by the Roffey Park Institute.

In Canada, Marks and Spencer decided to hold a weekly half-hour training session in the stores - for both part-time and full-time staff - at company expense. Attendance is compulsory. It is the store manager's responsibility to ensure that this regulation is enforced. Some sessions have to be repeated 2 or 3 times. Problems which surface during the week are aired. Discussions enlivened by slides and the use of the flip chart centre around various topics such as shrinkage, quality control, delivery of merchandise, etc. Initially managers were reluctant to accept responsibility for this training session; topics had to be specified. Now they, along with the sales and supervisory staff, enjoy this interruption because aside from its problem-solving function it breaks the monotony.

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[*] The Canadian subsidiary does not, as a rule, send its employees to the U.K. to attend courses.

On rare occasions, outside courses on technical matters are recommended here to bring staff up-to-date. Generally it is believed, however, that more can be learned from the experts within the organization who have proved themselves for 20 or more years.

According to company policy, 50% of the fees for outside courses are reimbursed upon successful completion. The scheme is not well-used; we learned of three instances where staff had taken advantage of it. One former area staff manageress had taken night courses for the past 1½ years in industrial psychology and labour relations. She found the latter very helpful because at the time one of the stores in her jurisdiction was unionized.* In her present capacity as assistant personnel manager she was not planning to buy resources outside, although she expressed an interest in attending outside seminars. (UIC and CP, for instance, offer half-day workshops.) Another area staff manageress, whom we did not have the opportunity to interview, had apparently taken "quite a few" courses. Finally, two outside courses had been selected by a supervisor in the Danforth store (Toronto) in order to gain technical knowledge. (One of these was attended on company time.) - As we have seen from the foregoing examples, very little training is bought outside the company.

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* There are 3 union-organized shops in Canada: Windsor, Sault Ste. Marie and Oshawa.

CHAPTER IV

THE TRAINING PROCESS

Four Events Around Which Training Occurs

Four major constellations or compartments of training are intelligible to educators as well as to the industrial training community. In other words, we have identified roughly four events around which training tends to cluster:

1. initial training (orientation)
2. promotion
3. change that affects the company
    a. adaptation to new environment
    b. introduction of new technology
    c. reorganization
    d. growth (expansion)
4. specific problems

1. Initial Training

Most of the training at Marks and Spencer is geared to the new individual joining the company. Initial training is intended for everyone. "...for all staff at Marks and Spencer, including directors, and with the exception of a few specialists and technologists, their career begins with fundamental training in the stores which are the heart of the business."[5]

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[5] *Ibid*, p. 248.

Sales assistants receive approximately 7 weeks' training which is carried out both in the classroom and on the floor. It is administered by the area staff manageress and by the personnel assistant in the main store. Three functions of the sales staff for which training is required are:

1. manning cash register points
2. maintaining counters
3. service to customers (requires merchandise knowledge)

Initial training lasts up to 5 days; it is a self-paced undertaking. On the first day, the trainee is given a general introduction to the business. This orientation program is followed by 7 topics to be covered:

1. Background information
2. History of Marks and Spencer
3. Job of a sales assistant (slides and script)
4. Cash register training
5. Electronic cash register training
6. Service procedures
7. Approach to customers ("A Customer's Point of View" - slides and script)

Separation at this stage is possible because of bad attitude or behaviour, such as rudeness or sulking. However, staff are not dismissed readily; there is a three-month trial period.

Feedback is provided in the form of questionnaires (did trainees think this course was valuable), which helps improve their attitude and results in increased overall performance.

When a sales assistant is ready, usually at the end of the first week, she is attached to an experienced sales person for another week. During this time she is allocated to a "home" department, and remains under the wings of a supervisor until she is able to work independently. This phase lets her put into practice the procedures which she has just been taught in the classroom, like cash register and layout work. It also permits her to become familiarized with such Marks and Spencer policies as moving stock around frequently and assisted self selection. (This is a system whereby customers select their merchandise from the displays and pay at a central pay point; someone is always available if advice is needed.) Once her trial period ends, she changes departments from time to time.

Temporary staff generally receive about 8 hours' training (4 and 4). Training is done on the job by the supervisor, except in the Metropolitan Toronto area, where the area staff manageress carries out the training at a stretch one Saturday in the Yonge St. store, which has a training room equipped with a slide projector, screen, tape recorder and flip chart.* Temporaries work 8 to 12 hours per week (2 evenings and Saturdays) for about 6 weeks, up to a total of 72 hours. Most of these are students hired over Christmas or at other busy times.

With regard to teaching strategy used, area staff manageresses tend to improvise when training, rather than adhere strictly to the text. "A lot of what we do is by gut reaction, as when we see a glazed look on the face of a trainee."

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* The training room is regularly used by staff from different stores and from head office for a variety of training sessions. (Many of the stores have to do their training in staff lounges.)

The store manager here is the equivalent of a department store manager in the U.K., where it might take 20 years to become store manager. Whereas management trainees advance very rapidly in the relatively small shops, those in the U.K. progress in stages - toward a very desirable, yet distant, goal at the end. The following passage describes this lengthy training process in detail:

> "The potential manager, on his entry into Marks and Spencer, is subjected to a careful process of selection by a board of three including two members of the personnel department and a store manager or senior executive; graduates are welcomed and about one in five entrants come from universities. From the start, he is treated as an individual, and his course of training is carefully adjusted to his particular needs and abilities. A training guide gives him the programme he will follow, on a time-table which will vary according to his own capabilities; it will begin with an introductory course at head office, designed to give him an overall view of the business as a whole and the fundamental principles on which it is based. This is followed by a period of six to nine months' training in a store, which gives him the opportunity of becoming acquainted with every aspect of its work; his training guide, issued by head office, provides him with a basis of detailed knowledge which encourages him to ask questions and ensure that nothing is missed.
>
> This period is followed by a two-week course at head office, designed to consolidate the knowledge he has gained and provide the background for his next period of training as a trainee departmental manager, in charge of a small section of a store.
>
> After a further six to nine months he is ready for appointment as a departmental manager and attends a final course of two weeks at head office, which includes talks by directors and executives, conducted visits to stores, exercises in store layouts, and visiting the permanent exhibitions maintained at head office illustrating the growth, development and modernization of the company's stores, food handling and hygiene, and administrative simplification.

> Throughout this training period of about eighteen months he will have been brought into personal contact with those with whom he will have to work; with his store manager, who will have assessed his capabilities as a member of his management team; with the divisional executive, who will have visited him in the store and arranged talks and discussions with other trainees and visits to the factories of the company's suppliers; with the personnel officers, with whom he will have discussed his progress.
>
> Following this initial period, he will gain experience as a departmental manager for two to three years in different stores, be attached to head office for a time in order to learn the working of the central organization, and from time to time attend meetings of departmental managers organized by the divisional superintendent.
>
> From departmental manager he will be appointed to assistant manager, not automatically but on merit. At some point a decision will have been made as to whether he is more fitted for store management or employment at head office....
>
> Promotion to store manager is made by the directors on the recommendation of a committee composed of members of the store operations and personnel departments. The decision will be based on his record and on real personal knowledge of him not only by the selection committee but by the directors who will have learned to know him on visits to stores."[6]

Management trainees in Canada are not getting much training in the formal sense; instead, they receive practical training in the stores, under the supervision of the store manager and the personnel manager. Three internally-run courses are given over a period of 2 or 3 days. This is considered to be no more than an audit to indicate to the trainees which stage they have reached. (An evaluative function is being performed simultaneously.)

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[6] *Ibid*, pp. 247/48.

The trainee has to train himself to a large extent, because Marks and Spencer do not offer any in-depth courses on management skills.

At the time of the interview, the personnel manager was in the process of training 10 future store managers, the largest group she had ever taught. The trainees had been in the business for 3 months.

During the first 6 weeks, they worked as sales assistants because they had to know what the job entails before they could move on to the next stage, a three-day course on technical skills.

The personnel director thought that the trainees were being pushed far too fast. He would have preferred them to work as sales assistants for 3 months, but he needed them too badly in the new stores.

Store managers train ideally for 9 months before entering assistant management which is still a learning stage. (They have no responsibilities to produce anything for that store during this period.)

Management training has become slightly more structured due to a recent change. Until December, trainees stayed 4 months in one store to learn the background, and then moved into a second store to gain experience as supervisor. This time, the trainees were attached to a home store for 9 months, and pulled out for specialist stages (e.g. one week with the warehouseman).

Every trainee is exposed to the 3 different types of store (mall, tight-footed and free-standing), and has a certain number of planned contacts. Marks and Spencer tend to move trainees around to enable them to see different styles of management.

Essentially, staff manageress training follows the same lines as that of store manager; it covers all aspects of store management, but is sufficiently flexible to meet individual needs. Practical training in the stores is supplemented by head office courses and group training (on a divisional basis in the U.K.)

Area staff manageresses who were trained in Canada did not receive much formal training. One was a direct intake for staff management. Her two-month training program consisted of 2 weeks as sales assistant; 2 weeks as supervisor, followed by a series of management courses on personnel work, store and counter layout, etc., run from head office. The training room in the Yonge Street store was used. Each course lasted 2 days. (This program is generally intended for future store managers and senior supervisors.) She found it helpful because it solidified what was learned on the sales floor and "put things into perspective". Training was done mostly on-the-job.

Staff management training in the U.K. lasts up to two years. Individual and group training programs are divided into 2 main courses: staff management (administration) and training techniques. At the end of this period, the trainee is appointed assistant staff manageress and works under a store staff manageress for some time before being given her own store. (She may ultimately become a divisional personnel manager.)

Supervisor training again consists of a combination of apprenticeship (trainees are followed around store), and classroom instruction (theory of counter and store layout, taught in the Yonge Street store). Formal training is administered in 3 or 4 two-day sessions; programmed courses from the U.K., with slides and films, have been adapted by the training department for this purpose.

Every supervisor has received backstage training (stockroom, office, and staff management), in addition to sales assistant training. Special training is required for food trainees. Both food and textile training take up to 6 months. (The complete supervisor training program is outlined in Appendix A.)

The next step is to change departments; to this end, the training department is planning to introduce a general policy on rotating.

Direct intake supervisors begin their training with basic sales assistant training in the stores (6 weeks), followed by attachment to a supervisor for 1 week. They may train in merchandising and selection which gives them a background in the industrial side. The direct intake is responsible for a department for 3 weeks while still attached to the supervisor. From there, she moves to a different department and another supervisor. By this time, she is capable of making some decisions regarding store operations. After this point, her progress depends on individual motivation - some need 6 months, others need a year. The initial training period is 4 months. 2 important factors are company requirements and mobility of the individual.

2. Promotion

Marks and Spencer are well disposed to developmental training. They favour giving staff learning opportunities at regular intervals (to avoid boredom), which in many cases lead to promotion. If this is the case, the scope of salary and authority changes.

Last year there were 2 instances of warehousemen advancing to the supervisory level. (One is now a supervisor in men's wear, the other was expected to be supervisor around Christmas.) Others may follow. Merchandise from Canadian suppliers is delivered directly to the stores now rather than being stored in a warehouse. One implication of this is that the next few years will see a change in the role of warehouseman. A warehouse manager position may be created; more promotions will likely occur.

After the 2 or 3 day initial training stage described in the previous section, further training may be given to a sales assistant if she is very capable and shows potential:

1. office training
   (apprenticeship under office supervisor, no courses)
2. supervisor training
3. "service green flash"
4. "development green flash"

A competent, reliable sales assistant who stays on the floor could become a "service green flash". She receives sit-down training for this. A piece of green felt is worn behind her badge. It means that she has credit card signing privileges, gives refunds, and handles customer complaints. The service supervisor can develop into a sales floor or office supervisor.

A candidate for "development green flash" is trained on the job as well as attending supervisor courses. She cannot be visually distinguished from the "service green flash" but knows that she will eventually become a supervisor. (All Marks and Spencer supervisors have been "development green flashes".)

If no supervision or management position is available (due to a momentary low turnover, for example), and immediate promotion is out of the question, good employees are given the opportunity to acquire a second skill, such as display work, ticketing signs, backup in office, or cash collection in the store.

Horizontal rotation sets the Canadian plant apart from its British parent. In the U.K., employees cannot cross from one ladder over to another. Here an area staff manageress recently moved laterally from the personnel to selection (buying) function. This lateral movement is possible due to the size of the operation.

Supervisors can move into merchandising or selection at head office, on the recommendation of the area staff manageress or the store manager. They can also become store managers; to enter the management training program, they must submit an application to head office, supported by their store manager. In order to move horizontally to the position of office supervisor, they have to attend courses given by the area administrator; the area staff manageress makes the necessary arrangements for this training. One supervisor in every store has been trained to be personnel assistant to the area staff manageress. (The Yonge St. store is the only one in Canada with a full-time personnel assistant because of its large staff.) In the U.K. about half of the staff manageresses are promoted from supervisory posts within the stores. Marks and Spencer feel that every supervisor ideally should be able to run a textile department, a food department, and the office. To this end, a policy on rotation is to be introduced soon by the training department.

For the store manager, a promotion constitutes looking after a bigger store or moving to head office (e.g., merchandising). It is not impossible for a female store manager to become area staff manageress. At present, the Canadian subsidiary is contemplating a male staff manager.

The training department is in the process of establishing a trainer in each store, which would mean a promotion for either the store manager or supervisor.

A staff manageress* in the U.K. could go into head office and be groomed as personnel manager, or she could be put in charge of a division of 20 stores, in which case the staff manageresses in each store in the division would be responsible to her (i.e. the divisional personnel manager). Area staff manageresses in Canada are promoted through being given additional stores. The company is attempting to attach the staff managers to the training department for a 12-month period; so far, only 2 have actually done so.

Marks and Spencer encourage their staff to engage in learning activities combining work experience and classroom teaching, although these may not always represent avenues of advancement. Mobility is stressed: staff are moved about frequently - horizontally, vertically, and as a change of environment (i.e., exposure to different types of store). In the words of the personnel director, "not everyone is going to advance in this business, but everyone is going to grow".

3. Change That Affects the Company

a. Adaptation to New Environment

Since Canada is divided into larger geographic areas, it is necessary to have field teams who spend a great deal of their time travelling to the various stores. For this reason, stores do not have a resident store manageress. Training requirements differ: staff receive more on-the-job training, less formal instruction - which is still evolving. The training period is generally much shorter because new stores are badly in need of staff. It takes approximately one year to train a store manager compared with 18 months to 2 years in the U.K., where the management trainee must progress through several stages.

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* The difference between staff manageress and area staff manageress, in terms of responsibilities and training, is explained in Chapter V.

Moving to a new market entailed closing stores (Marks and Spencer had never been involved in store closings before), retraining Walkers staff, and opening stores in shopping malls. These mall stores conduct business from 9:30 a.m. to 9:30 p.m., leaving very little time for training.

The amalgamation in 1975 proved to be a giant undertaking - the company's most extensive training program in Canada. Marks and Spencer was being faced with an odd assortment of managers from a different type of organization with a completely different philosophy. It was very difficult for management staff in stores and in head office to teach the "nuts and bolts" of Marks and Spencer business. Most of this retraining was not conducted in the classroom. In the eyes of the company, the venture proved to be a success.

Comparing the number of Marks and Spencer management staff today with that in 1975, the successful managers are either the trainees of those days, or the younger, more flexible staff at Walkers who were determined to win the battle by learning to change their direction.

b. Introduction of New Technology

This type of company change refers to, for instance, new styles being introduced. Staff have to be oriented with respect to how they should sell a new line.

Supervisors are taken out of their store for a day, by department, to let them see new fall or spring merchandise - sometimes before the store manager has seen it. A sales assistant who is responding especially well to new styles coming in qualifies for a raise which has to be authorized by the area staff manageress on the basis of the store manager's recommendation. Further training is planned in this area.

c. Reorganization

The number of geographic areas was recently reduced from 5 to 4, and area staff manageresses from 6 to 4. Thus, individual areas have been substantially enlarged.

Two of the former area manageresses had to be moved to other positions, a case of horizontal rotation. One is currently being trained as selector. A new position was created for the other - that of assistant to the personnel manager. (She required no special training for this.)

Since the current 4 area staff manageresses have to look after additional stores, some of the training has to be decentralized. The whole direction of the training department is changing slightly because of the reorganization. Staff in stores - managers, supervisors and personnel assistants - will have to be trained to train. (Training responsibilities are to be clearly defined in each case.) The personnel manager has begun to produce a number of supervisors who will concentrate increasingly on basic training in stores.

d. Growth

Marks and Spencer (Canada) cannot effectively train each individual to the extent in which he or she is trained in the U.K. where training developed gradually with the growth of the company. To cite an example, the British training organization includes individual and group training programs; the speed of growth of the Canadian company has prevented individual training, except for some self-paced instruction.

On the positive side, Marks and Spencer's rapid expansion "has forced staff into decisions". When there was a shortage of managers in the summer of 1978 because the business had grown so quickly, senior supervisors were put in charge of stores (without further training), forcing them to make major decisions while the managers were on vacation.

As a result of growth, then, much of the training takes place on the job.

4. Specific Problems

The question which we are attempting to answer in this section is "how and when are special problems translated into training programs".

If a particular problem persists after the three-month probationary period, Marks and Spencer resort to the "three-interview syndrome", a series of corrective interviews the first of which is conducted by the store manager, and the next two by the area staff manageress who has to decide whether this is a personnel problem she has to deal with directly, or a training problem she has to delegate. The latter is assumed, as a rule.

The suggestion for a corrective interview comes from the supervisor, store manager or area staff manageress. During the first interview, the criticism is explained; extra training is provided, if necessary. An employee who is weak in an area of sales, for example, is given additional training which is usually done by the personnel assistant[*] off the sales floor, and followed up by the supervisor or store manager. At the second interview, the area staff manageress gives the employee feedback about her sales manner and points out some ways of improving her skills or attitude. More training is recommended (e.g. cash register work), or the sales assistant is moved away from the troublesome situation - where possible. Much can be learned about her attitude from the way she reacts to the feedback and suggestions.

If no improvement is noticeable by the third interview, the sales assistant is told that she will have to leave. She is given one more week to correct the problem.

This system has only failed in a very few instances. For the most part, Marks and Spencer end up with a reformed person; dismissals rarely occur.

The personnel director interferes in cases where training does not solve the problem. A breach of regulations may be involved. It may be a case of an item not selling because it does not appeal to the public, rather than the staff not having been taught how to sell it. The problem would then be inherited by the textile department.

Occasionally problems surface which affect the overall operation of the business. Since board executives and a majority of the staff responsible for administration, store operations and personnel have come from the same mould, "nobody is going to pull the wool over anyone's eyes". (The only areas in which there is an exclusivity are perhaps the scientist and textile technologist who work on fabrics, or the financial manager.) A meeting is arranged, the problem discussed, and a common solution found. Executives regularly communicate to each other what is happening in their particular departments.

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[*] In other stores supervisors are responsible for this extra training.

The solution to specific problems at Marks and Spencer lies in training, not separation.

Evaluation

Evaluation of training programs and course participants is still in its infancy.

The personnel manager, the person in training and the four area staff manageresses are directly involved in the evaluation process. Training needs are tied to the appraisals: recommendations for further training are developed from them.

The initial training program is evaluated by trainees as to whether they find it helpful. Store managers appraise the whole management training program on a regular, ongoing basis. An evaluation is prepared in written form once a year towards the end of the training period. (Until then, only an informal evaluation is carried out.) The written evaluation is passed on to the area staff manageress who adds comments and then discusses it with the training department.

Participants in a crash course for supervisors with no previous training are appraised by an area staff manageress. Evaluation of the selection training program is being undertaken by one of the trainees, a former area staff manageress, because she is familiar with both sides.

Several courses are not yet being formally evaluated, among them Supervision I.

It is anticipated that, as soon as store managers and supervisors assume more of the training role in the stores, there will be a closer relationship between trainers and evaluators.

CHAPTER V

PERSONNEL (THE TRAINERS)

The personnel department is responsible for the development and administration of training programs. All trainers are virtually on the same organizational level.

It should be noted that the company traditionally employs a large number of women in supervision and management. Marks and Spencer have found repeatedly in their history that women prove to be better personnel managers than men. There are, at present, between 10 and 12 female store managers; the personnel manager, the assistant to the personnel manager, the person in the training department and all area staff managers are women.

Only two staff members have a professional background; both used to be part of the Walkers organization.

On the following pages, we shall examine in detail each individual trainer or staff category - at head and in stores - responsible for training. Their background, training and responsibilities are discussed.

Head Office

Personnel Manager

The personnel manager is in charge of personnel and training (in stores), and, as such, administers an annual salary budget of $10,500,000 - exclusive of benefits. Her responsibilities include coordinating area teams; the interviewing, selection, training and placement* of management trainees; and giving refresher courses "once or twice a year" to training staff. She is immediate supervisor to the 4 area staff manageresses, her deputy (the assistant personnel manager), the person in the training department and one personnel administrator.

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* She plans out a schedule for them, i.e. which management trainees are attached to what store and how many. (A store usually has 1 or 2 trainees at a time.)

Holding a British teaching certificate, she taught at the elementary level for 4 years before coming to Toronto in October 72. She joined Marks and Spencer 3 days after her arrival.

She received her Marks and Spencer management training both in the U.K., where she attended a three-month course, and on-the-job in Canada, under the personnel manager at the time.

Upon returning to Canada, she became the first area staff manageress, and looked after 8 to 10 stores in the beginning. One of her duties was writing the initial training manual.

While doing field personnel work in Calgary for a period of 4 months, she trained junior staff manageresses, as well as sales assistants (for 1 week, in a classroom setting).

The possible creation of a position between the levels of personnel manager and personnel executive is envisaged for the future.

Assistant Personnel Manager

This new position absorbed one of the former area staff manageresses who became redundant with the recent reorganization. It was her second week in office when we interviewed her on October 12, 1978.

Her new responsibilities are loosely defined. She is working closely together with the personnel manager for the time being; their duties may be split later. Both are involved in training. One common objective is the development of materials for training trainers, so that stores will become more self-sufficient.

Apart from her immediate priorities, the assistant personnel manager is hoping to work on a uniform training policy and Canada-wide network of up-to-date information.

She began her career in the personnel field at Smith's in Windsor, where she was involved with training (using her own materials), labour relations, staffing, budget and benefits.

The 3 Smith's stores were controlled through the Walkers chain. When Marks and Spencer acquired control of the Walkers division in 1975, she received a promotion in the form of 5 or 6 additional Marks and Spencer stores. Her title was changed to area staff manageress in the spring of 1976. Together with the former and current personnel managers, she was instrumental in closing the original downtown stores and in retraining Walkers staff.

The interviewee was trained by the person seconded from Marks and Spencer in the U.K., who had initiated the integration programs. Training consisted mainly of observation and discussion in the stores. In the capacity of area staff manageress, she eventually assumed the personnel and training function for Southwestern Ontario.

The Training Department

What is formally called the training department is responsible for 1) responding to requests for training within the business; 2) creating self-perpetuating programs, and 3) notifying staff of existing opportunities, such as seminars and films.

As mentioned before, it is the intention that every area staff manageress spend 12 months in the training department on a rotating basis. At the time of the interview, the person currently holding that post had just moved into her new position 2 weeks earlier; she is only the second person in this role. She represents a support system for the staff manageresses. Her most frequent contact is with the personnel manager.

The training department's responsibilities have been broadened considerably as a result of the new area structure. Apart from developing training packages, the incumbent will train staff in stores to use these materials. She will become involved to a certain extent in the store management program, and in the initial training of new sales staff. A trainer is to be established in each store. In an effort to maintain and improve the standards of supervision training, she will supply a more intensive training course for supervisors. Because of the larger individual areas, she also felt that she and the personnel manager would have to look at seminars.

Other duties encompass every aspect of area staff manageress training, and setting up specialized training programs for selectors, merchandisers and distributors.

Among the challenges of the job - as perceived by the interviewee - are the development of more Canadian materials and more training programs for head office (e.g. accounting, statistics), as well as concentrating on the decentralization of training.

Her predecessor saw herself as a skills coordinator. She felt that one person in the training department was insufficient, since she found it impossible to cover the whole of Canada adequately. Follow-up to ensure her training courses were effective was impossible; she had to rely on store managers and the area staff manageresses to follow up on her training. Her function was primarily to upgrade supervisors. In her opinion, a main priority now is to devise a practical training techniques course for supervisors, based on the British model.

During the summer of 1978, the previous person in training designed a program for selectors, although she knew little about the area. (She wrote the distribution guide, too.) This was done through consulting with administrators of various departments (mostly in the U.K.) as to which material to cover and the time required for each stage. She then asked them to evaluate her program. Furthermore, she organized a one-day workshop for the first group of selection trainees; it dealt with topics like quality control, stock control and budgeting.

In the U.K., Marks and Spencer employ a staff of 40,000. Relative to that figure, there are 8 or 10 functioning persons in the training department at the London head office, in each division. The Canadian subsidiary has not reached that proportion yet, but may well have it in the future, according to the personnel director. He added: "In fact, we have already taken the first important step in that direction by creating area training officers, i.e. supervisors responsible for training in the areas."

As the business grows and responsibilities increase commensurately, Marks and Spencer anticipate having to break up the duties of the area staff manageress and of the store manager. Ideally, each of the 4 areas will have a training specialist at some point who would be reporting to the area staff manageress. However, the training department person will remain because hers is considered a vital publication and organization role.

Area staff manageresses are not required to undergo any additional training for the position in the training department; program planning is regarded as a natural extension or integral component of their training responsibilities.

Head Office Staff Manageress

At head office there are numerous specialized departments, among them selection, distribution and merchandising. The head office staff manageress is responsible for seeing that appropriate training in these categories is administered; she is not involved in the training process itself. Besides arranging courses, she oversees the general (junior) staff at head office, which includes secretaries, and integrates departments.

Before joining Marks and Spencer, she worked in catering and as hotel manager. She graduated from a three-year hotel training course, followed by some personnel training.

Stores

Area Staff Manageress

One of the obvious distinctions between the Canadian and the U.K. operation is that Canada has area staff manageresses, and the U.K., resident staff manageresses or managers.

The area staff manageress is the only member of the area team directly involved in training - with the exception of the area administrator, who trains office personnel. There are, under the revised area structure, 4 area staff manageresses, one in each of the following areas: West, Western Ontario, Toronto and North, Scarborough and East. Three of them are based in Toronto.

Area staff manageresses are directly responsible to the personnel director. Their immediate supervisor is the personnel manager who co-ordinates the teams. They meet with her formally as a group approximately four times a year for one day.

The role of the area staff manageress is threefold: 1) a broker between store management and sales staff; 2) an aide to the store manager; and 3) a liaison or link between head office and staff in stores.

One interviewee in this category saw the ability to deal with people as the most important aspect of her position. "Technical skills can be taught, but the attitude has to be there initially." The area staff manageress must be able to lead and to inspire; empathy with, rather than a flair for, people is all-important.

As in the U.K., the primary responsibilities of the staff manageress are "the well-being of the staff, their selection, deployment, training and development".[7] In the words of the personnel manager here, "the function of the manageress is to provide stores with the right number of properly trained and motivated staff".

The size or area of responsibility is measured in numbers of people which has fluctuated. Under the old system, each area staff manageress was in charge of 250 employees which has increased to about 450 since re-organization.

Specialization in staff management in the U.K. involves the following:

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[7] *Ibid*, p. 246.

1. Payroll
2. Personnel records
3. Administration
4. Liaison with head office
5. Organization of warehouse and cleaning staff
6. Public relations aspects (women's organizations, public tours of stores)
7. Dealing with staff
8. General welfare (e.g. pre-retirement discussions)

By comparison, the responsibility of the area staff manageress in the Canadian Marks and Spencer chain embraces these areas:

1. Staffing - must be at the right levels what is the store climate; do stores need to hire any more part-timers; are they having any problems with full-timers; are the sales assistants working to standard; are the supervisors performing at the right standards; are they supporting the manager
2. Training - initial training; sales assistant training; supervisor training
3. Disciplinary matters - corrective interviews, dismissals
4. Raises - authorized by the area staff manageress on the basis of a store manager's recommendation (managers have a measure whereby they can ascertain that a store assistant is performing better than others and, therefore, qualifies for a raise)
5. Benefits, leaves - deals with pension plan; insurance; maternity and sick leaves; accidents; severance
6. Personnel records - keeps files accurate and up-to-date

7. Hygiene - looks after hygiene as it relates to staff and to shopping conditions of the customer

One specific responsibility, which distinguishes the area staff manageress from her resident British counterpart, is devising her own program as to which stores to visit every day. Area staff manageresses work on "movement sheets", which means that every Friday her movements for the following week are called in to head office; stores are informed of her arrival. The choice of the store is determined by cause. (Stores with ongoing problems have to be visited once every week, while those that operate smoothly are visited less frequently. Extra time must be spent in newly opened shops.)

Backgrounds vary. Of the seven present and former area staff manageresses, two have a professional background in personnel, and used to be part of the original Walkers organization; three moved up through the ranks in the U.K. (supervisor-assistant staff manageress-staff manageress); one has a British teaching certificate and taught for 8 years in Western Canada; and one is a graduate of McGill University who began her career with Marks and Spencer as supervisor and personnel assistant before entering staff management. Those who joined the Canadian operation during the first half of the 70's played a significant role in the opening and closing of stores.

Corrective interviews, firing, criticizing the manager and closing stores were considered problems of the job of area staff manageress. A need for more in-depth training to improve overall delivery, for practical exercises and demonstrations of training, was revealed. Another concern expressed was that the larger areas and ensuing lack of time would prevent area staff manageresses from effectively carrying out all the training they would like to do themselves. Interviewees stressed the many positive aspects of their position. Above all, they referred to the increasing importance and authority of training in the Canadian division; they felt that the personnel manager and director were very supportive in this regard, that training was at all times backed by head office.

Store Manager

In the U.K., store managers are encouraged to view training as a vital part of their work and to be involved in the development of their staff as individuals. Up until the end of 1978, many store managers in the Canadian Marks and Spencer had training rather low on the list of their priorities. It was recognized that managers would have to become more involved in staff management. The personnel manager selected those managers best naturally qualified to train. At the next stage, store managers would be trained to train, to assume more of the training function of the area staff manageress.

The store manager can now also be held responsible for shrinkage, caused by any one of shoplifting, internal theft, mishandling of goods or mistakes in paperwork. (It is recognized as a problem, "but we do not allow it to interfere with our main shopkeeping activities".)

Another responsibility is organizing the half-hour training session held in the stores once a week.

In discharging his duties, the major one of which is, of course, the operation of the store, the manager uses his discretion, initiative and understanding of the particular situation; there are few written instructions. Directions are received primarily from personal contacts with head office executives on their frequent visits to stores and his own visits to head office.

Most of the store management trainees are university students in their 20's.

Supervisor

The supervisor heads a department in a store and is responsible to the store manager for the counters and staff in her section, and the stock in her control. She is, in fact, the manager of her own section. Like the store manager, the supervisor will take a more active role in training in the future. The personnel manager is beginning to produce a number of supervisors who are going to concentrate increasingly on basic training in stores.

Most supervisors are selected from sales assistants who show initiative and ability.

Personnel Assistant

One of the supervisors in every store is trained as personnel assistant to the area staff manageress. The assistant handles basics of staff benefits, such as insurance, leaves and the pension plan. She may be asked to do additional training if there are problems with a sales assistant. Head office (usually the personnel manager) runs a one-day seminar for personnel assistants.

The main Marks and Spencer store on Yonge Street is the only one in

Canada with a full-time personnel assistant; this is necessary because of the large number of employees involved (over 70 full-time staff and 60 temporaries over Christmas).

The personnel assistant is responsible for interviewing, hiring, training of sales and supervisory staff, and some management training. She also makes the decision as to whether a certain problem can be solved with additional training. She has found that training is usually the answer. However, if the problem still persists once the employee has returned to her former job, she will move her to a different section of the store. In difficult cases, she consults with head office. She has had to dismiss a few employees.

Most of her time is spent on sales assistant training (10 hours), including regulations, company history, money matters; the supervisor follows up with training specific to her department.

The full-time personnel assistant conducts the weekly half-hour training session in her store. Each week she deals with a different topic. She might have an occasional separate session with supervisors.

This interviewee's career began as manager of a Becker's milk store. She joined Marks and Spencer 6 years ago. Initially a sales assistant, she was encouraged to take supervisor training, then junior management training. Her knowledge, however, was largely gained on the sales floor.

She was trained at head office as well, and travelled to other Marks and Spencer branches in Ontario.

With new stores opening and a larger staff, more full-time personnel assistants are envisaged for the future.

Some of the training responsibilities of staff categories examined in this chapter overlap (e.g. who controls training at head office), and are in the process of being redefined.

CHAPTER VI

TRAINING COSTS

Costs are estimated to be $200,000, exclusive of the area staff manageresses' and training department's salaries. This estimate also does not include salaries paid to trainees during the training period. It is, therefore, difficult to give the exact amount designated for training.

The fact that the training and personnel functions are combined in the Canadian organization further complicates the issue of training expenditure. Area staff manageresses, for instance, spend a considerable percentage of their time on personnel work as well as on training.

As for the type of training to which these costs refer, it is not simply a question of where does training begin and end. Every time an area staff manageress or administrator enters a store, there is a form of training going on at different levels all the time.

The management trainee immediately becomes a sales assistant as he or she joins the business at whatever level. This applies to staff all the way through to executives and directors: their career begins with fundamental training in the stores. By the time he or she completes 6 months' training experience, he or she is doing a supervisor's job and is beginning to earn his or her keep.

According to the latest appraisal of a formal apprenticeship system, it is estimated that some time during his or her second year, the apprentice begins to return something to his employer. The personnel executive feels it is much earlier than that at Marks and Spencer.

CHAPTER VII

COMMENTARY AND CONCLUSION

Until recently, company growth took precedence over training. This is beginning to change. Interviewees saw the volume of training increasing as the company expands even more. The whole question of training and development will be a main concern here over the next 5 years.

A summary of proposed future changes in training programs is given below:

1. Development of more Canadian materials
2. More training for head office
3. Staff in stores will be trained to train, with training responsibilities clearly defined in each case
4. More full-time personnel assistants
5. Store managers are to assess training needs in different areas
6. A training techniques course for supervisors
7. Establishment of 4 training specialists, one in each geographic area who would report to the area staff manageress
8. Organized training programs to correct weak spots and refresher courses are planned

Personnel and training will never be totally separated; mixed responsibilities are considered to be highly desirable and will always be maintained. Every employee is treated as an individual at Marks and Spencer, and training reflects that policy.

APPENDIX A

SUMMARY OF MARKS AND SPENCER TRAINING GUIDES

LIST OF SUPPORT MATERIALS

SUMMARY OF MARKS AND SPENCER TRAINING GUIDES

1. Initial Training - sales assistant

2 or 3 days

Introduction to the Store

Background Information

History of Marks and Spencer

Job of a Sales Assistant

Cash Register Training

Electronic Cash Register Training

Service Procedures

The Customer's Point of View

2. Sales Assistant Training - textiles and foods

Textile Department

3 weeks	Textiles - stages 1 and 2
2 weeks	Textiles - stage 3
2 weeks	Foods - stages 1 and 2

Food Section

3 weeks	Foods - stages 1 and 2
2 weeks	Foods - stage 3
2 weeks	Textiles - stages 1 and 2

After each stage has been completed, the trainer should check the sales assistant's understanding of it and give further training, if necessary.

3. Departmental Supervision Training

Sales Assistant Training

4 weeks	Textiles - counters and racks*
2 weeks	Foods

* Refer to sales assistant training guide.

Backstage Training

3 days	Stockroom
2 weeks	Office
1 day	Staff Management

Textile Training (up to 6 months)

The trainee should be attached to the food supervisor for 2 weeks during this stage.

Food Training (up to 6 months)

The trainee should be attached to the textile supervisor for 3 weeks during this stage.

The emphasis of the training is different for food and textile trainees:

Textile trainee - 2 weeks
Food trainee - 2 months

The textile trainee will need an overall picture of the organization and running of the section.

The food trainee will need a complete understanding of the organization and running of the section and, in addition, detailed knowledge of merchandising. She should build up knowledge of every aspect of work on each department until she becomes capable of running the whole section.

4. Catering Assistant Training

Minimum time requirement - 2 weeks

Two Stages:

Stage One

- Introduction to the Catering Unit
- Hygiene
- Health and Safety
- Use and Cleaning of Large Equipment
- Floor Polisher
- Trolleys
- Extractor Unit
- Cookers
- Sinks
- Service Counter and Boiler
- Refrigerator
- Pan Racks
- Preparation Tables
- Stock Cupboard
- General Cleaning
- Crockery, Cutlery and G.P. Trays
- Ashtrays
- Floors

Stage Two

- Counter Organization
- Lunch
- Beverages

Dining Room Organization

Vouchers

Service to Manager and Visitors

Management Staff Table

Communications

5. Catering Supervision Training

2 weeks	Catering Assistant Training
3 weeks	Food Supervision
	Food Production
	Kitchen and Dining Room Organization
1 week	Warehouse Management Training
	Office Management Training
	Staff Management Training
1 week	Operating the Catering Unit

Suggested Time Structure

Catering Assistant Training

Minimum requirement - 2 weeks

Food Supervision

Minimum requirement - 2 days

Food Production

Kitchen and Dining Room Organization

Minimum requirement - 2 weeks

Management Training

Warehouse Manager/Foreman - 1 day

Office Management - 1 day

Staff Management - 3-4 days

Operating the Unit

Minimum requirement - 1 week

6. Distribution Training (draft)

1 week	Introduction to department
1-2 weeks	Work with an experienced distributor
1 day	Distribution Course I
6-8 weeks	Work on distribution in department*
3 days	Distribution Course II

* During this period visits to manufacturers and stores should be arranged.

For trainees without previous store experience, a two-week attachment to a selected store will be included in this program.

7. Selection Training

2 days	Introduction to head office and department
8 days	Distribution attachment
1 week	Attachment to merchandiser
12 weeks	Working in a department, to include: (i) visits to manufacturers and stores, accompanied by experienced selectors (ii) attachment to textile technologist and quality controller, to include (one-week) visits to fabric supplier and laboratory (iii) attachment to sales management to include store probe (3 days)

(iv) attachment to textile administration (2 days)

(v) attachment to merchandise manager (1 week)

(vi) attachment to a garment supplier (1 week)

15 weeks total

6-9 months Working in a department

Training Meetings

1. One day after distribution attachment
2. One day after 15-week period

8. Merchandiser's Training

- covers major points which can be used as training guide during an attachment to an experienced merchandiser
- 6 months is the recommended time to complete the program, but it may be adapted to suit individual needs

Estimating and Production Allocation

Costings and Margins

Production Control

Raw Material

Checking List Summary

Distribution

Ratios

Trial Lines/Sales Reports

Merchandiser/Selector Calendar

Store Visits

Visits to Manufacturers

Presentation

Tickets

LIST OF SUPPORT MATERIALS

1. Conditions of Employment and Staff Regulations
2. Selling (questionnaire, slides, cassette recorder)
3. Service (slides, tape recordings)
4. Display (notes)
5. Organization Chart
6. When to Call a Supervisor
7. Acceptance of Cheques
8. Sales Procedure-Electronic Tills
9. Sales Procedure
10. Guide to Health and Safety
11. Shrinkage
12. Shrinkage Control

PART E

LEARNING IN ORGANIZATIONS

Four Case Studies of Education in Industry:
A Model of Information Exchange

CASE STUDY NUMBER FOUR

WARDAIR

by

Alan Thomas, Project Director
Reg Herman, Principal Investigator
David Beatty, Principal Investigator
Jutta Keylwerth, Research Officer

An Internally Funded Research Project
of the Department of Adult Education
The Ontario Institute for Studies in Education
252 Bloor Street West
Toronto, Ontario
1980

LIST OF INTERVIEWS

WARDAIR

CAPTAIN WILLIAM F. MILES
Chief Pilot responsible for DC-10 Training

WANDA TAYLOR
Manager of Training
Cabin Services

C. D. McNIVEN
Vice-President
Maintenance and Engineering

JAMES H. MILLS
Director
Maintenance and Engineering

DOUG TOMPKINS
Manager of Training
Intervac

JACK GORDON
Director
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American Airlines Training Corporation

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American Airlines Flight Academy

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American Airlines Training Corporation

MINISTRY OF TRANSPORT

DON GILCHRIST
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Air Carrier Inspection (Large Aeroplanes)

BEN K. LYNCH
Supervisor
Flight Attendant Emergency Procedures Training

J. SMALE
Senior Air Carrier Inspector
Aeronautical Engineering Division

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FOREWORD

Wardair is unprecedented among the 4 case studies of education in industry and government*, in that government agencies play a vital role in staff training relative to 3 divisions of the company: Flight Operations, Cabin Services, and Maintenance. The focus of the Ministry of Transport (MoT) varies from 1 division to another, but in each case, DoT sections certify and recertify staff-regulating and authorize training frequency, curriculum, instruction and evaluation standards; furthermore, they monitor training courses, as well as line performance. In view of this unique relationship, we particularly enquired about possible elements of friction. We found that relations between these Wardair departments and MoT supervisory groups are considered to be first-rate by both sides: open and helpful, mutually cooperative and trusting. The excellent relations between Wardair and MoT appear to constitute a norm for the industry.

This case study provides a rich context for the field of adult education; however, its implications are difficult to assess and the interpretations may lead to controversy. There are some adult educators who believe that adults should have the right to choose and control their own learning. Out of this concern and the social issues of the '60s, there has emerged what some term a "movement"[1] for self-directed learning. Yet every time the doctrine of self-directed learning is proposed as a basic issue of adult education someone commonly appears and asks:

> *"What about pilots? What about doctors? They aren't free to decide what they learn, nor should they be. Rather they must accept laid-on training and procedures and be regulated in the performance and conduct of their duties."*

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*The other 3 case studies, describing education in non-educational institutions, deal with Bell Canada, the CBC and Marks and Spencer.

[1] See Griffin, Virginia R.,"Self Directed Learning and Learners"in Learning Quarterly Journal of the Canadian Association for Adult Education, vol.2, #1&2

This case study illustrates that dilemma and raises other questions that hold special interest for adult education practitioners. Among them, what are the factors that account for the difference in our society's attitude towards pilots and other professionals which regards as necessary their constant and recurrent training? Is it determined by the number of persons who can be hurt at one particular time or jailed by inappropriate use of power or office?

> *"I firmly believe in the right of adults, including professionals to choose and control their own learning. But I don't know that that includes pilots. I would not feel safe with a self-directed learner piloting at the controls of my plane."*

To what extent has the compulsory character of pilot training been a factor in the development of its unique sophistication? Simulator engineering, despite the cutback of aerospace programs, has continued to move dramatically ahead to meet the growing needs of pilot and affiliated kinds of training. Flight deck simulation is now deemed a better training ground than an airplane: "If you crash a simulator, all you hurt is your pride." With the future development of synchronized laser-created visual images, the simulators will be improving training capabilities for applications still undreamed of — to say nothing of the technologically advanced service model, one of several, of the American Airlines Training Corporation. In the area of health care, most medical schools apply funds and resourses for clinical training in a variety of simulation techniques. If a number of them cooperated in adapting the new simulator technology to initial and recurrent medical training, what would be the potential for health care education? Speculations along these lines from the context of the case study could be continued ad infinitum.

The various divisions of Wardair, a company employing a staff of less than 2000, have developed training programs that are diverse, dynamic, and rich in data of direct significance to the educational enterprise. Because of the clearly defined role of the federal government agencies, we have described separately — under Section I — those divisions of the company individually affected by these agencies as well as the American Airlines Training Corporation in Texas from which Wardair purchases its training; and, in Section II, the function of the Ministry of Transport as regulatory body of the Canadian airline industry. (Intervac and Passenger Services — Chapter Four, Section I — are not affected by government regulations or training except to limit their practices as services of a charter airline.)

We would like to express our sincere gratitude and appreciation to Mr. Maxwell Ward and the many officials of the company who so generously gave of their time, knowledge and experience and assisted us in securing the valuable interviews with the Ministry of Transport Supervisors for Flight Operations, Cabin Attendant and Maintenance Training and the further interviews with officers of the American Airlines Flight Academy and Training Corporation in Dallas/Forth Worth, Texas. Without exception, we found ourselves in the presence of sensitive, keen and dedicated adult educators. Not named in our list of interviews, but deserving special mention, are Mrs. Nancy Stenhouse and Mr. Art Jackman who provided encouragement and assistance to enable us to implement our decision to do this study.

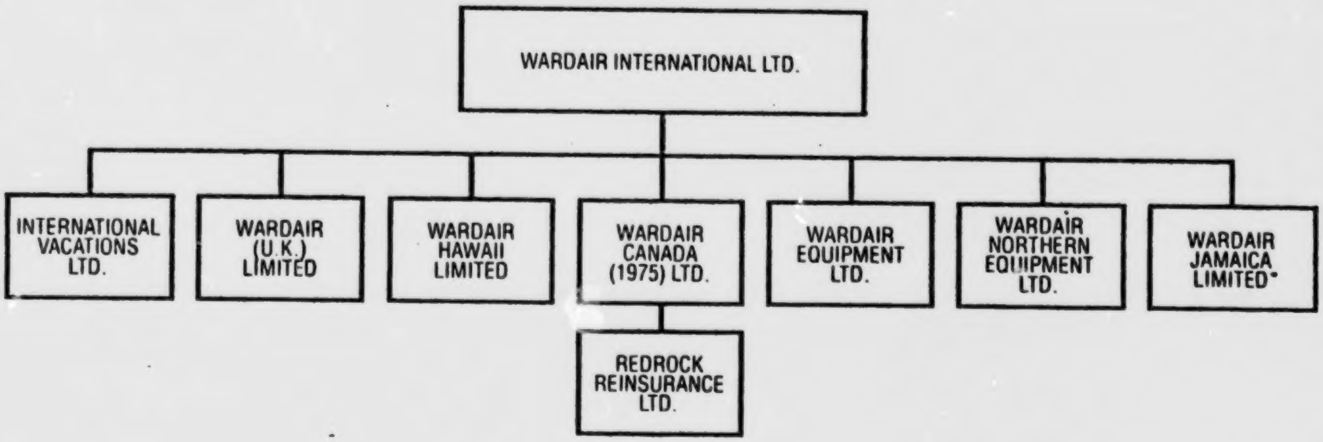
Mr. Reg Herman, Principal Investigator of the case study, established initial contact with Wardair and arranged and conducted all interviews.

Ms. Jutta Keylwerth, Co-Principal Investigator, wrote and edited the final report, working from Mr. Herman's preliminary transcripts of the taped interviews.

John French typed the manuscript, incorporating feedback from various officials of the airline industry.

The text has the distinct advantage of having had its major component chapters reviewed by the appropriate interview officials for feedback and corrections which enhance the usefulness, value and acceptability of the study to its intended users. We hope that it will lead to increased communication among its contributors.

ORGANIZATION CHART OF THE COMPANY


WARDAIR INTERNATIONAL LTD.
INTERNATIONAL VACATIONS LTD.
WARDAIR (U.K.) LIMITED
WARDAIR HAWAII LIMITED
WARDAIR CANADA (1975) LTD.
WARDAIR EQUIPMENT LTD.
WARDAIR NORTHERN EQUIPMENT LTD.
WARDAIR JAMAICA LIMITED*
REDROCK REINSURANCE LTD.

Wholly-owned Subsidiaries, Officers and Senior Management

International Vacations Ltd.

Maxwell W. Ward
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*Inactive at present

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WARDAIR

SECTION I WARDAIR

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A. WARDAIR TRAINING

CHAPTER ONE

FLIGHT OPERATIONS

Recruitment

Wardair pilots are recruited from 3 areas: scheduled airlines, the military* and the corporate field (smaller charter companies or large corporations such as Imperial Oil). Unlike other airlines that may carry 3 pilots on the flight deck, 1 of whom acts as Flight Engineer, the Wardair counterpart consists of 2 pilots and a professional Flight Engineer who is fully maintenance qualified and holds this position throughout his period of employment with the company. (It is his responsibility to maintain his licence.) The Wardair Flight Engineer can carry out repairs on the aircraft during en route stops - even if it involves changing an engine. This practice has proved to be very successful and will be continued indefinitely.

Wardair requires a much higher level of qualification of new pilots than, for instance, Air Canada or CP Air (where a new pilot may gain flight maintenance experience prior to actually occupying the pilot seat). The reason for demanding such highly qualified pilots (i.e. with a considerable number of years in the industry or the military behind them) is that they must be capable of assuming co-pilot responsibilities immediately upon completion of their training. This reduces the number qualified, not the amount of training given. Thus, in hiring, Wardair investigates the applicants as thoroughly as possible to ensure their competency to complete the training in the specified time period.

Each airline formulates its own policy with regard to pilots' "cut-off" age at time of hiring. Several years ago, it was 27 to 28 years, regardless of experience. The age limit is slowly increasing in the United States as a result of greater demand. Wardair's hiring policy includes no formal, firmly established age restriction. Yet considering the company's investment in terms of training costs, and mandatory retirement for pilots at the age of 60, Wardair generally prefers hiring pilots who will be available for a longer range of employment. Nevertheless, Wardair will hire an older pilot knowing that he has only a few years of service left before retiring - provided that he has already completed the necessary DC-10 or 747 training.

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*More than 1/3 in the last 10 years.

Training of DC-10 Pilots*

The initial pilot training course is not modified in any way to accommodate the new pilots' higher-than-normal level of expertise. It is the standard course administered to all pilots who fly that particular type of airplane (i.e. a DC-10 or 747). Since Wardair operates the only DC-10s in Canada, its pilots must be trained by the American Airlines Training Corporation in Dallas, Texas.

The DC-10s replaced Wardair's conventional narrow-bodied 707s, increasing the seating capacity from 183 to 301. The 747s were purchased for the purpose of expanding the fleet. Wardair currently owns 6 charter aircraft: 2 DC-10s and 4 747s; the company has about 90 pilots on staff covering both types of airplanes, and close to 50 Flight Engineers.

Initial training comprises 2 5-day weeks at the Dallas Flight Academy. This is referred to as the Ground School. Different airplane systems and their technical descriptions are covered.

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*Due to a time constraint, we were unable to interview Captain Nicholson, the Chief Pilot responsible for training 747 pilots.

There has been a major change in Flight Operations training over the last few years. Previously, initial training involved teaching the "nuts and bolts", e.g. details relating to the construction of the wing. The present training concept differs in that the course does not teach anything over which the pilot has no control (i.e. anything the pilot "cannot see, touch or move from where he sits"). In other words, new pilots are taught facts concerning the engines and the operation of the fuel system because they are physically or visually associated with these parts.

The 2 weeks in the Ground School are organized according to the individual components of the airplane, such as 1) electrical systems; 2) fuel; and 3) hydraulics. Students begin each day in their own audio-visual carrels, where they are taught through film and television presentations, slides and tapes, for 3½ hours at a stretch. This method allows the individual to learn at his own speed, i.e. he controls the process. There is 1 instructor for every 2 students; thus, if the student does not understand a certain point, he can ask for, and receive, clarification without delay, before proceeding to the next step.

After lunch, in a 3-hour session - again with a student-instructor ratio of 2:1 — trainees enter a Cockpit Procedures Trainer which simulates the flight deck of the actual aircraft (in this case, a DC-10). It is built to scale, but unlike a flight simulator that can be set into motion, the Procedures Trainer is bolted to the floor of the room. Although some of the instruments in it may not work properly (they can be preset from the instructor's board), all engine instruments, quantity gauges, warning systems and lights are controlled by a computer outside the Procedures

Trainer, and function exactly as they do on the aircraft. During the afternoon session, the instructor remains with his 2 students continuously, quizzing them on what they learned earlier in the day. The theoretical information absorbed from the slides and tapes is now reinforced (and applied in practice) by learning about all the systems in normal operation, including switches and emergency procedures.

This daily routine continues for 2 weeks, at the end of which time the instructor gives the 2 students with whom he has been working in the cockpit procedures Trainer an oral examination lasting up to 7 hours. (Usually the 2 students finish the test in approximately 4 hours.) There is a discretionary element in the trainer's decision to certify that the students have the required knowledge to pass the course. Both the course instructors and the testing itself are periodically monitored by inspectors from the United States Federal Aviation Administration, the equivalent of the Canadian Ministry of Transport (or Transport Canada).

In Canada, the post-course tests are mainly written examinations, but the use of oral tests in the United States is recognized and accepted by MoT which is pleased with the quality of the program offered by the American Airlines Flight Academy. In this country, the written examinations (on airplane systems, etc.) constitute an interim test of the student's readiness to proceed with the balance of training.

At the AA Flight Academy, the Ground School training of 747 crew has to be conducted in a classroom environment due to the large numbers involved. The methods remain unchanged in principle. The same aids are used (i.e. slides, tapes, films, video tape recorder); however, this time with groups of 6 to 8, rather than the 2:1 ratio in effect during DC-10 training.

After the 2 weeks of Ground School, students are taken into a flight simulator; built exactly like the airplane, it is erected on large hydraulic rams, giving them the feeling of motion, so that trainees are seemingly "suspended in space". A visual mechanism built onto the simulator projects a runway and typical airport environment in front of the windows for the pilot-in-training, who can thereby taxi around the airport, practise take-offs and landings, etc. The flight simulator can feign any real emergency, including hydraulic failures, electrical malfunctions, engine fires, tire blowouts, and more. Students are expected to apply the prescribed procedures to solve the problems as if they had actually occurred on the airplane. (Problems are not presented in any predetermined sequence to affect the realistic unpredictability factor.)

Wardair supplies its own instructors for simulator training, the most important part of the course, in order to ensure that the pilots are trained to Wardair's procedures and specifications. Simulator training (beyond the Ground School) lasts a further 10 days: 4 hours per day for each team of 2 pilots and 1 flight engineer, for a total of 20 hours at the controls and 20 hours as a crew member, assisting the other pilot — based on the goal of close crew cooperation. An all-inclusive test, termed a "check ride" is administered at the end. (Some required areas to be tested are certain types of takeoffs and landings and conditions on the aircraft.)

From the simulator, the new pilots proceed to the most difficult and crucial segment of their training, which brings them back to Canada. It involves 3 hours' training on a Wardair DC-10 (or 747) aircraft, 1½ hours for each pilot. Wardair instructors are responsible for flight and route training. In previous years, this stage demanded 12 to 14 hours; however, the simulator has reduced the time requirement. In fact, it is becoming so effective that in the United States, pilots will very soon be able to bypass the flight training stage on some types of aircraft and proceed directly from the simulator to route training.

Following this last phase, the new pilots fly a minimum of 25 hours under a supervisory (training) Captain on assigned routes or line trips, prior to becoming a bona fide pilot. (The supervisor decides if more time is needed, i.e. over and above the 25 hours.)

When Wardair purchased the DC-10s, its instructors, including Captain Miles, passed through the entire training course at the Dallas installation. AA instructors were in charge of the whole program. Wardair had to lease a DC-10 from American Airlines, whose instructors then concluded the flight training of Wardair trainers on the leased aircraft. The 25-hour route training was provided by flight crews from McDonnell-Douglas, manufacturers of the DC-10. They acted as supervisors on the new airplanes, until Wardair instructors were sufficiently qualified. This procedure is mandatory whenever the company purchases a new type of airplane: either the training given by the manufacturer, or a certified facility such as the one in Dallas must be used.

While the Ground School comprises a self-paced undertaking in order to accommodate individual training needs, AA instructors try to assist students so that they do not develop too large a gap in their progress. For instance, an instructor might counsel a student having difficulties, and at the same time perhaps slow down his "partner" who is progressing too quickly, so that the 2 students finish the course together. Of the 35 to 40 Wardair pilots having thus far received DC-10 Ground School training, there has been no serious case of one individual moving too far ahead of another. The major advantage of the programmed nature of the training is felt to be the opportunity for students to stop and review any material they may not clearly understand, and to adjust their study breaks individually, thus enabling them to structure the program to their own personal requirements.

Newly qualified pilots with previous experience in flying either type of airplane (this must be endorsed on their Airline Transport Licence) do not have to complete the 2 weeks of Ground School. The full period is reduced to a time frame deemed adequate in a particular case, depending on the number of weeks/months/years the pilot has not had contact with the DC-10 (or 747). A student may, therefore, only spend 5 days in the Ground School, instead of 10. Similarly, the simulator portion of training can be reduced proportionately.

Maintenance training is not connected in any way to the courses taken by flight crews. Instead, trainees in aircraft maintenance have to satisfy an entirely different set of parameters, receiving much of their training directly from the manufacturers. (McDonnell-Douglas also offer a 3 or 3½-week Ground School course for pilot trainees.) However, many of their students do not have the same background and qualifications; inexperience may be accompanied by language problems and lack of technical orientation. The 2-week Ground School training is geared to the advanced student, and meets exactly Wardair's requirements.

Training for Promotion

With the purchase of new airplanes as the company expands, a First Officer on a DC-10 has the opportunity of being promoted to Co-Pilot on a 747, then to Command on a DC-10; after several years, he can become a 747 Captain –

each stage requiring retraining. A Wardair pilot may have to retrain 4 or 5 times in the course of his career. As a case in point, Captain Miles and his colleagues trained on 3 different types of aircraft formerly employed by the company, namely the DC-6, 707, and 727.

Every time a new aircraft is purchased, Wardair may require up to 6 crews for it - which entails training 12 pilots. In addition, 6 new Captains will be needed because of promotions in this category to the 747 (necessitating retraining); moreover, the training (or retraining, whichever the case may be) of 12 First Officers is essential - 6 for the new aircraft, and 6 promoted to Command on the DC-10. Put succinctly, when Wardair hires 12 pilots, the actual number to be trained may rise to 36, exclusive of Flight Engineers, 12 of whom would require training - 6 for each type of aircraft. The acquisition of 1 additional airplane thus presents a major training problem.

Recurrent Training

Once every year, Ministry of Transport regulations stipulate recurrent Ground School training, which is also supplied by the Dallas Flight Academy. Wardair forwards its course content requisites to the AA Training Corporation for an estimate of training time to be purchased; this is submitted to Transport Canada for approval. Recurrent training encompasses an aircraft-specific review of systems and components, usually lasting 2 to 3 classroom days, under the supervision of AA instructors.

Furthermore, Wardair instructors must give 4 on-line checks each year: line flight crews must return to the simulator every 6 months, and in-flight checks are also carried out twice a year during a regular flight. These simulator and line-checks, to which every pilot must submit, can be performed on the whole crew as a unit, rather than on each individual.

Scheduling recurrent training for crews, without disrupting regular airline schedules, is essentially a 12-month responsibility - a heavy training commitment; "you never stop training or being trained on an airline until the day you retire."

The basic guidelines of recurrent training are incorporated by MoT in "Navigation Orders", issued through Ottawa, which lay down the points that must be covered, though the pattern of instruction is determined by the company instructors.

If some extensions of time are necessary due to line schedules, these are readily granted by MoT.

Specific Problems

With the passage of time and the increasing complexity of systems, the largest potential area for problems are anticipated to be malfunctions in the airplanes, e.g. in hydraulics on the DC-10. Should a problem arise, pilots must:

1) possess a thorough understanding of procedures to be followed;
2) be able to determine to which extent the problem has affected the operation of the aircraft; and
3) be flexible enough to make a valid decision in the handling of the airplane.

If the individual is overly cautious, he will be reluctant to carry the procedure down to a certain point and hence will be unable to deal with the affected components in a decisive manner. Generally this reluctance can be traced back to a "mental blockage" which is subsequently removed as the supervisor takes that crew member back to the simulator to demonstrate his mistakes to him. ("One of the beauties of the simulator is that you can demonstrate the wrong procedure and its bad effects; if you crash the simulator, the only thing you hurt is your pride.")

Personnel or personality problems connected with simulator or flight training are normally referred to Captain Miles; if the problem is really serious, the Vice-President for Flight Operations, his superior, inherits and deals with it.

In the event that, according to an instructor, a student does not perform satisfactorily or has a case of "test-itis" (i.e. gets nervous before that 2-hour session in the simulator), and some doubt is expressed as to his competency, another instructor will generally be assigned to him – especially where a personality conflict is perceived. Sometimes the "check ride" has to be repeated with the replacement trainer. Not infrequently, Miles will fly down to Dallas to rectify the situation himself.

The simulator represents a stressful, pressure-laden environment on which the instructor is basing his value judgments. "It is much easier to fly these airplanes than it is to fly the simulator."

Training Staff

With regard to DC-10 training, 4 pilots and 3 Flight Engineers are responsible for producing crews to serve 2 airplanes. As for 747s - with a fourth aircraft having been added in April - 6 pilots and 5 Flight

Engineers are in charge of training in this area. It is not a question of having to maintain a set number of trainers per airplane; rather, Wardair must provide sufficient personnel to administer both initial and recurrent training.

As Chief Pilot in charge of DC-10 training, Captain Miles both trains and flies (regular and newly developed routes). The division of his responsibilities depends on training needs. In February of 1979 – the date of the interview – his time was heavily committed to training. He indicated that once the new crews were certified, he would devote more of his time to line flying.*

Miles assumed the training function in Wardair approximately 5 years ago. He is responsible for "everything but Ground School": initial, simulator and route/flight training, simulator re-checks, route and line checks. Yet he cannot participate in training as fully as other supervisors, due to his overall commitments (e.g. in the office).

In the selection of (already highly qualified) instructors, Miles is mainly concerned about personality, i.e. the ability to relate well to others, and to criticize or discipline without demeaning, much less alienating someone. Supervisors are carefully chosen, nevertheless, the possibility always exists that 1 of these instructors does not measure up to Flight Operations standards. In this case he would be replaced immediately – in Miles' words, "We can't afford not to make a mistake."

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*Line flying by instructors when they are not training is essential to ensure that they, too, remain fully qualified pilots, maintaining a level of competency equal to that of line staff.

Captain Miles' Background

Initially a member of the Air Force, Miles worked for CP Air for a short period, then spent some time in New Zealand, where he was engaged in aerial fertilizing and crop-dusting. He returned to Canada to attend university and to obtain a Bachelor of Commerce degree.

As a student, he flew with the Reserve Air Force; during the summer months he was employed by Wardair, flying the DC-6. Upon graduation, he decided to return to the "airline business", and reapplied to Wardair which hired him on a permanent basis in 1967, when the company was expanding. Some time later, Miles was selected to act as a "checking" supervisor; from there, he was appointed to the position of Chief Pilot responsible for the training of DC-10 pilots. His superior is the Vice-President for Flight Operations.

Miles supervises Check Pilots who also train. Aside from his office duties, he feels that he and his Check Pilots fulfill the same basic function - as far as training and flying are concerned.

Crew Coordination

The heavy emphasis on crew coordination increases with each step (Ground School - Cockpit Procedures Trainer - Simulator - Flight Training). Despite the complexity of the controls, a pilot is theoretically capable of flying a DC-10 alone. However, the safety element demands that the First Officer and the Flight Engineer be present on the flight deck at all times. Coordination means that all 3 crew members must work closely together - "in harmony" - as a team, each one being aware of the others' duties. The stress is not merely on meeting and solving problems, but on the enhancement of safety. This differs greatly from the attitude of

20 years ago, when the Captain was the "Boss" and controlled everything. Today, he still has the ultimate authority - his decisions must be obeyed - but the interaction has changed. In the case of an engine fire, for example, the pilot does not turn switches off or move any levers; he concentrates instead on maintaining control of the airplane, and gives his full attention to the safety of the flight. The other 2 crew members - even if the Captain happens to be one of them, and the co-pilot is flying, - team up to perform emergency checks, each checking the other's list in the process. To illustrate the importance of coordination, all fuel switches are located in a bank; in a moment of excitement, 1 person could shut down a burning engine, reach up and accidentally turn off the fuel supply to the engine beside it, leaving 2 engines out of commission.

The Captain and co-pilot are thoroughly familiar with the duties (and check list) of the Flight Engineer, and vice versa, because all 3 have been trained simultaneously as a crew in the Ground School, simulator and the aircraft. Since they have all been trained in the same concepts, they can be moved around freely to form different crews; in fact, they do not fly as one unit throughout their careers. Each crew member owns a copy of Wardair's Operating Manuals in which step-by-step procedures are clearly specified: starting the engine, taxiing, takeoff, climb, cruise, descent, landing - and the duties involved in each step. Included as well are all the systems and components of the airplane. Once training has been completed, the Operating Manual is deemed virtually the only book needed to operate the airplane proficiently.

Certification of Wardair Instructors

The Ministry of Transport sends inspectors to the training courses both in Dallas and on the airplanes. Once a year MoT inspectors observe each of the 4 DC-10 instructors in the process of training a student in the simulator; the instructors are then certified for another year. In sum, the annual certification process entails checking the instructor's competency in flying the aircraft as well as his ability to instruct.

Wardair is very open and claims to have excellent relations with MoT which is found to be very cooperative and helpful.

Flying a New Route

Various agencies supply charts, diagrams, navigational aids, etc. for the world's airports. The most important of these for Wardair is the Jeppeson Company (Denver, Colorado and Frankfurt, Germany), since it covers all airports in detail.

In the case of a brand new destination, charts are consulted for operating and time restrictions, terrain, runway layout, etc. Wardair's Passenger Services division staff will, as a rule, send a representative to the new airports to examine all available ground handling equipment. A comprehensive report on this subject is then sent back to Flight Operations. If any doubt remains, one of the Chief Pilots may decide to investigate further. Thus far, Charts, publications, and information supplied by Passenger Services on ground equipment, have been adequate to guide first flights which are operated by a supervisory Captain – either Miles or one of his Check Pilots. He will prepare a written brief on any airport peculiarities, such as terrain or language problems. The brief is distributed to all crew members prior to commencing regular service; otherwise, if no brief is available, a supervisor must accompany every pilot flying into an airport for the first time.

Training Costs

In response to our query relating to training costs, Miles stated that it would be difficult to give a valid answer. For example, it is impossible to estimate what portion of his salary is paid for simulator training alone. Hotel costs for Wardair trainers and trainees represent another unknown figure.

The bare cost of a DC-10 simulator is $7,000,000 which does not include housing it, installing air-conditioning to protect the computer, classrooms, etc. In effect, Wardair leases the simulator. At the moment, leasing time is a problem because of the current rapid expansion of American Airlines caused by deregulating schedules; Wardair must conform to AA's timetable.

Miles' estimate for hotels, meals, Ground School and simulator training is $15,000 per person. Trainees bear no part of this cost, and are paid salaries during training. No estimate could be supplied of the cost of the company trainers' time.

Flight Operations is 1 of the 5 divisions which comprise Wardair. The other 4 are Cabin Services, Intervac, Passenger Services, and Maintenance and Engineering. Training is decentralized: each division has its own training unit. There is no Personnel Department at present; one is expected to be created shortly.

CHAPTER TWO

CABIN SERVICES

Initial Training

Wardair employs a total of 700 Flight Attendants. As of February 1, 1978, when Wanda Lea Taylor joined the company in the capacity of Supervisor (she is now Manager of Training), the decision was made to centralize all Cabin Services training in Toronto. Prior to October, initial training was administered in cities across the country - wherever training was needed. This meant that training staff could not operate from their home base, but were required to travel, often considerable distances. A Training Supervisor, for instance, used to recruit and train 100 Flight Attendants (F/As), say in Montreal, and then move on. The attempt to train about 300 F/As in a 6-month period in Toronto, Montreal and Vancouver was termed, in the course of the interview, virtually impossible.

In February, the Initial Training Program began to run 2 classes simultaneously, using classrooms at Humber College, and involving 6 instructors. Following classroom instruction, training supervisors assess the quality of the trainees' in-flight performance.

Upgrading Training (Introduction of New Technology)

Wardair bought the first DC-10 in Canada. Since there were no organized courses for this type of aircraft, the company contacted the American Airlines Training Corporation in Texas. (The Dallas training installation has very sophisticated mock-ups and simulators).

Newly hired Flight Attendants were sent to Dallas for one week's Emergency Training. Furthermore, all line F/As attended a 4-day course at the American installation. The difference in length of training for new and experienced F/As was determined by the need for special training and grooming.

MoT would like to see a similar installation set up in Canada, perhaps on a co-operative basis supported by several airlines.

Wardair is now converted entirely to DC-10s and 747s.

Training for Specific Problems

New managers have moved into key positions in the company as a result of re-organization. They requested 3-day workshops for all the Firsts* (in small groups), which were completed last January. These were followed by a 1-day F/A workshop. The decision to concentrate on the Firsts was prompted by the fact that they are the leaders. Thus, the company expects from Firsts -

1. attention to interpersonal skills;
2. high quality public announcements;
3. leadership;
4. a thorough understanding of the service which is continually evolving.

In many ways, the workshops constituted a form of review, although new material and procedures were covered as well.

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*A "First" is responsible for the F/As and, thus, for the entire service in a particular aircraft.

In-house Cardiac Pulmonary Resuscitation (CPR) training is underway - also in response to a specific need, heart attacks on an aircraft with dependence on crew resources only. This problem has caused the company to qualify training supervisors to train F/As in CPR, in 1 or 2-day workshops (aside from the regular medical training received by F/As). Buying this kind of training outside (e.g. from the Ontario Heart Foundation or St. John's) is very costly. On the other hand, the initial outlay for equipment needed for in-house training was expensive. The plan is on a voluntary basis. No other Canadian airline is known to have a similar scheme at present.

Still dealing with the same question of translating special problems into training/information programs, the training department has a long-term idea of setting up refresher, problem-specific or new service information - video cassettes that can be plugged in for individuals or groups in the Briefing Room where all Cabin Service crews check in to be briefed by their First on procedures for the day's flight. Observed routine problems are handled by incorporating the concern in the Recurrent Training programs.

Recurrent Training

The annual refresher courses being offered to all F/As are still given at their own individual base, rather than in Toronto. A training supervisor travels to the base to instruct the 1 or 2-day courses on Emergency procedures, as required by the Ministry of Transport. These are referred to as Recurrent Training, and are much simpler than the complex Initial Training courses which involve the use of a great deal of equipment, such as visual aids. Minimum training standards are laid down by the Ministry of Transport. This includes the use of emergency equipment and procedures in simulated emergency situations. This type of "hands on" training ensures a F/A remains proficient in the actual use of the various equipment which is normally only used in an emergency. Wardair's standard far exceeds these minimum requirements.

Training Staff (The Trainers)

There is a permanent staff of 4 including the Manager of Training, as well as a "temporary assignment" part-time staff of volunteers. These volunteers receive a 1-week "train the trainer" course. The special training assignment is much sought after, despite the longer and more conventional hours required by the job.

Though only 2 classes of volunteers had been exposed to this type of instruction at the time of the interview (the use of volunteers was only initiated in October 1978), results are deemed positive: a marked decrease in complaints about inadequate preparation of Flight Attendants was apparent. The training Manager attributes the motivation of F/A volunteers to their desire to become involved in the company's operations. Previously, all Cabin Services training, both initial and recurrent, was the responsibility of 3 or 4 full-time trainers. The Supervisor of Instructors is in charge of training volunteers.

The addition of the volunteer system increases the training capability to an expected figure of 200 to 250 F/As in a 4-month period. This particular surge of hiring new F/As is due to the company's acquisition of another 747 in the spring of 1979. However, Wardair's growth is expected to continue with the purchase of additional aircraft, resulting in a further expansion of training.

MoT Involvement in Training

The Ministry of Transport is heavily involved in the airline industry's training departments. MoT sends Safety Inspectors on board the aircraft to check that F/As are qualified. They are authorized to audit a company's files at any time to determine the proficiency level of F/As. In effect, once a year, by law, every airline has to give F/As a refresher course (Recurrent Training), the emphasis being on emergency procedures and equipment. (The same applies in the United States and Europe). Safety Inspectors have the authority to test any F/A on such emergency procedures (e.g. "where is the nearest oxygen bottle?")*

Recurrent training courses in Wardair are attested to by issuance of a Proficiency Card for a 12-month period of time.

Once a course is developed, it is forwarded to the MoT for review and approval. Safety Inspectors are welcomed to observe the programs in the classroom. Their reports which indicate, whether the minimum requirements are met with respect to safety, are forwarded to Wardair for feedback.

Educational Subsidy

Wardair has a policy regarding educational subsidies for employees wishing to upgrade, refresh or augment their skills by attending courses outside the company. Partial financial assistance can be obtained by clearing the request through the individual's Department Head.

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*On one occasion, an Inspector asked a supervisor to sit in a Flight Attendant's seat, then to proceed to the nearest oxygen bottle - and he timed her.

The company provides its strongest support in management training. In March, the Manager of Training took a brief course at Humber College (once a week for 3 weeks), called Manager Development for the New Manager, which is offered every month.

Training Manager's Career Development

Upon graduation from a Canadian secondary school, Wanda Lea Taylor enrolled in the (private) Atlantic Airline School in Kansas, which operates on a combination of correspondence courses and 1-month residential training.

She began working with CP Air in Reservations, where she was a Sales Agent for 4 years. For the next 2½ years she worked as a Flight Attendant for TransAustralia Airlines. During this time she was upgraded to Grade 1, the equivalent of a Purser or First. While in the employ of TransAustralia, she was given a 6-month assignment to serve aboard Alitalia Aircraft as a Public Relations Representative of TAA, flying between Australia and Singapore. Wanda explains this co-operation between the 2 government airlines as a response to the large, rather isolated Italian community in Australia. The program, in its seventh year at the time, essentially provided information about that country.

Wanda returned to Canada to work for Pacific Western Airlines for 4½ years, successively performing the functions of F/A; Purser; Line Supervisor (assessment of F/As and supportive role for Purser); and Supervisor of In-Flight Training. The latter position entailed responsibility for co-ordinating, developing and instructing Initial, Supervisory and Purser training programs for In-Flight service.

From Pacific Western, Wanda Taylor was hired by Wardair on February 1, 1978 as a Supervisor. She advanced to Supervisor of Firsts, then became Supervisor of Training for 2 weeks. Brought about by rapid company growth, she moved into training relatively quickly. The position of Manager of Training became vacant and was offered to Wanda Taylor. She thoroughly enjoys working in the training field, which she finds challenging and rewarding.

CHAPTER THREE

MAINTENANCE AND ENGINEERING

Initial Training

Aircraft maintenance training courses are conducted as 2-year programs in a number of CAATs, such as Centennial College in Toronto, and in technical high schools (in British Columbia, Alberta, and Toronto). These programs are considered a basic requirement by the Wardair Maintenance and Engineering Division which supplies input to the airline-oriented courses. Someone hired from another airline would be expected to have successfully completed at least the equivalent of such a program.

In addition, the initial training period comprises 2 years of on-the-job training. The trade category of Aircraft Maintenance Technician, offers specialization as Avionics Technician, Sheet Metal Technician, or Aircraft Engineer (who must be capable of servicing all aircraft systems, but may not be skilled at sheet metal work).

A maintenance intake without previous experience is called Learner Mechanic, and progresses at 6-month intervals from grades 1 to 8, succeeded by Mechanic 1 to 4. From here he can proceed, if capable, to Aircraft Engineer training (grades 1 and 2); then to management as Foreman of Maintenance Organization; General Foreman; Superintendent of Maintenance; Director of Maintenance; and finally, Vice-President, Maintenance and Engineering.

A graduate of an 18-month or 2-year training program in a CAAT or technical high school is credited with 2 years in the Learner Mechanic category; he would thus begin at level 5. At present, company policy restricts hiring to these graduates because they are known to have been thoroughly tested to meet Learner Mechanic level 4 theoretical standards, including maintenance specialty training for a career in heavy-transport commercial aircraft. (However, they have not been oriented toward Wardair's specific needs which are dictated by its use of Douglas DC-10s and Boeing 747s).

When Wardair embarked on its recent expansion program, maintenance staff had to be hired more quickly than the colleges could train them. For this reason, the company either sought staff from other airlines and the Air Force, or hired those experienced in servicing smaller aircraft - if they were at least equivalent to Learner Mechanic 4 level, or higher.

New employees received an orientation course covering both the aircraft and Wardair as a company. The interviewees felt that this area needs further development, even though a minimum of 2 years on-the-job training which follows is considered most important for the new trainee; he is attached to a specific supervisor during this period. Future policy entails additional familiarization courses of a formal type.

When a new employee begins to train on a particular aircraft he receives a combination of classroom and practical instruction in the following areas: manufacturer's orientation course for general familiarization with the aircraft; safety aspects (to protect himself and his fellow workers); Wardair policy on cleanliness; and departmental image (including specifications and goals/objectives). The employee is then trained specifically on the features of the airplane - e.g. how to accomplish certain servicing funtions. By the time a Learner Mechanic approaches level 8, he is deemed sufficiently prepared for the specifics, i.e. an aircraft type approval course to enable him to certify a Wardair aircraft as airworthy. This means that Wardair administers a 5 or 6 week training course, run either by a manufacturer or by another airline — CP Air for DC-10s and Air Canada for 747s — based on ATA100 specifications which segregate the systems on aircraft. The candidate is tested to see whether he responds correctly to inquiries about any of these systems.

On completion of the training, a Mechanic is expected to assume some on-the-job training responsibility for learners coming up behind him, as well as accepting increased general responsibilities. In the mechanic grades 1 to 4, training becomes problem-specific: problems can materialize on any flight in the following areas: radar system; lavatory; instruments; landing gear, etc. On occasion, the vendor (e.g. Bendix) may offer a special course or symposium in response to a certain problem, or in order to introduce a new instrument. In particular, this stage is concerned with specific training on the engines (Pratt and Whitney, General Electric). Depending on the individual's background, the engine course again consists of both classroom and on-the-job training and lasts from 5 to 10 days. All courses are monitored, and must be approved by M.O.T., including those that are bought outside.

Wardair's Maintenance Department does not develop its own courses, though this is being considered as a future development. At present, a Training Co-ordinator is responsible for ensuring the availability of a particular training course whenever it is needed during an employee's career — regardless of whether he is an Aircraft Mechanic, Sheet Metal or Avionics Technician. From Learner Mechanic 5 up, all training is conducted in-house by the manufacturers, or in some instances, by other airlines, such as CP Air (and, to a lesser extent, Air Canada), whose instructors have been trained by the manufacturer and approved by M.O.T.

(As a rule, CP Air and Air Canada co-operate in providing training expertise to Wardair – subject to their own requirements and ability. In cases like these, Wardair employees attend courses in Air Canada's or CP Air's classrooms, usually in Toronto. Conversely, when Wardair is giving a course, it advises the other 2 airlines if there are seats available, which depends on the class limit set by the instructor. A maximum of 20 students seems to be an industry standard for classroom instruction.)

Working closely with the Production Foreman and the Manager of Maintenance, the Training Co-Ordinator plans the basic schedule of courses 6 months to a year ahead. He advises McDonnell-Douglas or Boeing when their instructors will be needed (specifically what the staff needs in terms of more emphasis in an area), taking into account that staff must be released from their jobs 4 to 5 weeks in order to attend these courses, and ascertaining that the training conforms to Wardair's needs and standards of quality. The Ministry of Transport must also be notified, so that its inspectors can audit the courses, if they wish. Centennial College does not provide appropriate training at the advanced level, nor does it offer the on-going training required in the airline industry. The feasibility factors play a decisive role here: there are only Wardair's 2 DC-10s in Canada, as well as 15 747s (Air Canada - 7, CP Air - 4, and Wardair - 4). The systems of a Boeing 707, for instance, differ substantially from those of a 747, thus requiring type training.

Regarding the administration of manufacturers' courses at their individual locations, Wardair is informed when spaces are available and sends its staff occasionally. However, these courses are more expensive and not preferred because the training is for a specific customer aircraft configuration. This is due to the fact that a company has bought different systems on the same airplane.

The categories of the various learning stages have been developed by Wardair, and are specific to the airline. Every company has variations of these categories: thus, Wardair's "Learner" classification is called "Junior Mechanic" elsewhere; Aircraft Engineers are known as Certified Mechanics by other airlines, etc.

There exists a mystique in Maintenance about sheet metal workers: it is believed that they have an almost inherent skill with which they are born. These men come from families of sheet metal workers, or have gained extensive experience in sheet metal factories; they are specialists who have not been trained in technical schools. Once they join Wardair, they receive 2 or 3 days' training for each type of airplane, to learn the specifics: the type of structure, the kinds of metals, of rivets and of sealing, etc. Further training is on-the-job experience. Furthermore, the currently prevalent use of materials and substances like fiberglass and resins, necessitates a 5 day transition course covering this type of new development.

As already mentioned, a career in maintenance at Wardair can ultimately lead to Aircraft Maintenance Engineer; he is responsible for certification – including sheet metal repairs. In other words, when an Aircraft

Engineer completes training, he has total certification and supervisory responsibility over all specialties and can be qualified for both the DC-10 and the 747. Airline Chief Inspectors, who belong to this category, are in charge of certifying aircraft airworthiness of major repairs and quality control. All supervisory personnel in Maintenance are former Aircraft Engineers.

Wardair's increased maintenance manpower needs are met largely by technical school graduates – although not all of them complete the probationary period successfully. Some have progressed through the ranks to Aircraft Engineer. Opportunities for advancement exist: Wardair encourages and rewards ambition, enthusiasm and self-motivation. (In fact, new employees must demonstrate their ability and desire to continue to learn during their probationary period.) Beyond fundamental training supplied by CAATs, Wardair demands the ability to apply theoretical knowledge, to solve problems to deal with change; versatility in coping with a variety of jobs; and awareness of safety concerns. Inspectors report to the Quality Control Department and oversee the on-the-job training by checking every job that is completed.

The training schedule changes constantly: "We have to be flexible."

The Role of the Ministry of Transport

M.O.T. supervision of maintenance and engineering is exercised on a regional basis, rather than centrally controlled as in the case of Flight Operations and Cabin Services.

M.O.T. plays a role in the certification process, when an employee's training and experience are assessed for a particular level (of certification).

The Manager of Maintenance writes on a person's file that he has completed the necessary training and is qualified to carry certification authority. After the Chief Inspector gives his approval, the Quality Control Department advises the M.O.T. and the employee's name is entered on the appropriate list.

Departments in the Maintenance Division (e.g. Planning) are ultimately assessed on the basis of on-going monitoring, rather than through the imposition of courses or tests.

Overseas Destinations

Maintenance training in this area is also the responsibility of the Training Co-Ordinator; the same sources are used. Some British staff are brought here for training in certain areas. Trained Canadian staff are sent to Hawaii because business is seasonal there. In the case of unexpected events, Wardair contracts for technical assistance from other airlines (e.g. Continental Airways, United Airlines, Pan Am, Qantas, KLM, Olympic Airways, Air Canada, Lufthansa), covering all destinations.

When Wardair adds a new destination, such as Israel, local resources are employed. In addition, the company carries a totally maintenance-oriented crew member on board its aircraft at all times — the Flight Engineer. He is a fully qualified Maintenance Technician, as well as having received training in Flight Operations. "This person has come up through the ranks, and has been certified by Quality Control. He can carry out minor maintenance at any destination."

Recurrent Training

Wardair provides basic guidelines for 3 days of problem-specific, recurrent training per year. It is the responsibility of the Training Co-ordinator to make recommendations in this regard. Recurrent training may cover 3 or 4 chapters - or more - of the ATA 100; theoretically it is possible to cover 20 ATA chapters in the same time period (i.e. 3 days). These guidelines are flexible; it is recognized that if much new equipment is being introduced or increasing numbers of staff are hired, more training time is needed.

Specific Problems

On-the-job maintenance training is intended to teach problem-solving, not merely routine tasks.

The Federal Aviation Agency publishes circulars regarding specific airplane problems; the manufacturers provide additional information about existing types of airplanes and receive feedback from the airline companies. For example, operators report aircraft problems to Boeing daily. Wardair may not encounter all of these problems, but is aware of them and can forestall them through frequent inspections. If the problem is of a serious nature, such inspection/certification may become mandatory on the part of the federal agency or M.O.T.

Aircraft manufacturers conduct seminars and symposia on general and specific problems (e.g. corrosion), in many locations, for the industry. One recent avionics conference in Vancouver drew over 400 representatives from nearly every airline. According to our interviewees, the same number of participants would attend an avionics symposium. While systems and

and instruments vary, there are commonalities of function in most aircraft — i.e. an instrument may look different but performs the same function in a Lockheed and a Boeing, and in fact may have been produced by the same manufacturer.

Wardair sends its staff to these seminars (provided the theme is relevant), and to the manufacturers' plants for general and problem specific updating. Forecasting maintenance developments is deemed equally as important as the training aspect.

Maintenance Staff

The Maintenance Department employs a staff of 458 in Canada and abroad — inclusive of management. This figure comprises mechanics and other trades not necessarily working directly on aircraft, but supporting the maintenance operation (e.g. welders, painters, ground equipment staff).

The Training Department within Wardair's Maintenance Division, as well as an in-house training policy, are still in the developmental stage. Previously, training had been a shared responsibility of the managers in Maintenance; since 1977, 1 staff member, the Training Co-Ordinator, is assigned specifically to training.

The Wardair Maintenance Training Co-Ordinator is experienced in classroom teaching. However, due to the diversification of training, he will be more closely involved in the 1 day orientation programs.

Future Training Plans

The Maintenance Division plans to streamline or develop a more systematic flow of training. Three days every year will be formally allocated for recurrent training. Another future development entails the training of management in supervisory skills. Rapid growth has accentuated this problem, stimulating considerable interest in management training for recently promoted staff.

CHAPTER FOUR

INTERNATIONAL VACATIONS LIMITED (INTERVAC) AND PASSENGER SERVICES*

A. *Intervac Training*

Intervac, a Wardair charter subsidiary, is a product of government legislation. A charter airline can fly passengers anywhere in the world, provided that it has landing rights — but it cannot sell the seats. Wardair, therefore, created Intervac with the purpose of selling Wardair reservations. It is Intervac's responsibility to assemble a product; the advance work, such as advertising and promotion, is carried out by the Product Development (PD) Department. Reservations is a separate department within Intervac.

PD staff work 8 to 10 months ahead of everyone else. They assemble the product and submit their proposal to the company. When in operation, they negotiate the seats for Wardair (on a separate company basis), make all the arrangements for transportation, hotel accommodation — and, finally, present the complete package to the Advertising Department.

Intervac personnel are located in all resort areas served by the airline. They provide a variety of ground services to the passengers, such as, car rentals, tour arrangements, etc. Thus, the important factor in Intervac training is teaching employees how to deal with the public, the emphasis being on the appropriate handling of a difficult customer.

Reservations Training

The very complex Reservations Training program, which involves teaching the use of the computer system, has the largest number of participants. In the past 6 months, 110 trainees completed this 4 to 5-week initial training course successfully. (Intervac's own study showed that only 11% of the new employees failed.) Length of the course varies from city to city. Classes are limited preferably to 15, considered the limit if training is to be effective; this number may be reduced to 12 or 13, usually after the first week, due to dropouts or failure. A 1-day follow-up seminar on public contact is conducted 1 month later; it covers company policy regarding service, customer satisfaction, and the correct way of dealing with "awkward" customers by telephone and face-to-face. A refresher course concludes the 6-month probationary period in reservations.

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*Intervac and Passenger Services are separate departments of Wardair.

During their first 3 months, reservations employees enter a telephone training sales course (RSVP), consisting of three 2 to 2½-hour lectures and AV presentations at 1-week intervals. During the intervening weeks, the trainees' performance on the telephone is monitored to see if they are applying the learned techniques. One month later, another refresher course has to be taken by all new employees. The complete training course is summed up in a film shown at the end.

In order to achieve the transition from probationary to permanent status, employees must be accomplished in using the RSVP techniques. If they do not meet this requirment, they are given a 3-month extension to acquire the necessary skills. In cases where no improvement is noticeable after this further probation, the employee is discharged.

RSVP was purchased from American Airlines, but totally revised and adapted by the Manager of Training and Personnel Development in this section which involved re-recording and replacing AA slides by Wardair's. In fact Intervac bought the program to use it as a model, because it is based on the concept of "active listening". (The objective is customer satisfaction through listening for what the customer really wants – in terms of price and hotel accommodation, for instance – as opposed to what he may be saying.)

It is a recognized fact that new employees cannot absorb all information about each one of the resorts in the initial training period. Thus, presentations must be staggered over an ongoing period. By the time a new employee learns how to use the Reservations manual and to interpret all computer programs; understands the company's travel insurance policies, terms and conditions; and knows a little about the aircraft (including a familiarization trip to experience the in-flight service), he/she has undergone 5 weeks of very intensive training, including a great deal of home study.

The familiarization trips for both reservations and sales staff are a responsibility of the Intervac Training Department, and constitute a "rest period" after the more rigorous formal learning stage. They take place on a regular basis for 2 or 3 days at a time (or a week's duration in the case of in-depth study of a resort), depending on the company's particular needs. Familiarization trips are also offered to on-the-road sales staff. The Training Department works out the itinerary and sends a group leader with the staff on these flights.

Training of Staff in Resort Countries

Cultural differences do not rank high, but exist, especially in England, where RSVP is considered a high-pressure selling technique, and is, therefore, not used. Instead, English staff receive initial reservations and "public contact" training.

Hawaii is a special case, too, in that local staff and the atmosphere in which they work, are much more casual and relaxed. Intervac does concentrate on "public contact" there, but has to emphasize computer operations as well.

Destination Representatives

Client Service or Destination Representatives are located in countries selected for Intervac tours, provided hotel accommodation is included in the price. Some of these destinations are Barbados, South America, Acapulco, Spain, Greece, Israel and Florida. Intervac does not sell packages to Holland and Germany, although both countries are served by Wardair during the summer months. Thus, responsibility for training falls on local agencies there, after careful scrutiny and approval of their services by Intervac.

When tour service was extended to Greece, Intervac brought the Destination Representatives (DRs) to Toronto for training. Normally DRs from Greece and Israel attend a 1-week training course in Toronto. In cases where any new information of significance surfaces during the season, someone from the Toronto office is sent to inform DRs. Uniquely for the Israel destination, Intervac has trained the head DR in Toronto, and is presently testing a plan whereby she will be able to train her own staff in Israel. This would be done through a contract with a ground handling agent whom she represents. (She was selected for the program in Toronto because she was a senior member of the agency, with previous training.) As for Spain, the winter staff from Acapulco, who are of course native speakers of Spanish, act as DRs there during the summer. There is a fairly large Intervac staff in Hawaii (about 50 DRs), as the company has a very substantial product in that state - but business is seasonal. In the summer, it usually drops off to approximately 12 representatives.

It is virtually impossible to move DRs about because of visa regulations and other restrictions in so many countries. For emergency contingencies, the company has two representatives "floating" during the season, in case someone resigns or falls ill. However, this does not constitute a visa problem. For the most part, the company tries to hire DR's locally in order to avoid legal difficulties. A second reason for this is to please passengers: when they arrive in Hawaii, for instance, they like to be met by a Hawaiian.

Because of the constant need for information updating, Client Service Representatives typically attend a minimum of 6-8 seminars of various descriptions per year. These would include product changes; new computer programming; program changes; new payment policies resulting from dollar devaluation, etc. Such changes are also covered in a daily pre-shift briefing by reservations supervisors : a 5-15 minute training updating every day.

Supervisory Training - Pathway I, II, III and IV

This new training package for supervisors has been developed by Doug Tompkins for the company. Pathway I (PI), which is given to new supervisors, introduces them to the principles of leadership. Pathway II (PII) is human relations training for supervisors who have been on the job for at least 6 months. Pathway III and IV (PIII and IV) are still in the planning stage; the former constitutes training in employee performance appraisal, and the latter in written and verbal communication. (Prerequisites are PI and II, or equivalent.)

PI consists of 3½-day sessions given in a 1-week period, limited to 6-8 participants preferably from 1 department, but will accept any senior staff who are about to be promoted to supervisory level. This is followed, after 6 months on the job, by PII, "a very strenuous human relations course" which is deemed very successful. Training in this category involves 8-10 hours per day, in addition to about 4 hours of home study each night and pre-course preparation.

Doug Tompkins, the designer and instructor of these courses, has received extensive training about 4 or 5 years ago. Since joining the company, he has researched current theory and refreshed his training by taking a night course in human relations at Sheridan College.

As manager of the Training Department, Tompkins is in charge of Leadership, Human Relations and Instructors' Workshops for any supervisors who are responsible for on-the-job training.

When he completes the designs of PIII and IV in mid-1979, he plans to take supervisors off the line and to experiment with giving them II, III, and IV in 1 week, preferably in the city where they are employed.

Computer Training

Intervac is "on line" from Hawaii to London; the system encompasses Honolulu, Vancouver, Edmonton and Toronto. In the case of an impending computer change, the Training Department is usually informed at least 10 days in advance. As the major base is located in Toronto, 1 person can normally cover London, Edmonton, Vancouver and Honolulu in 10 days. As a rule, the Manager of Training will take care of such situations.

In addition to maintaining the company's Reservation Manuals, the Manual Revision Department is in charge of revisions to the Computer Operations Manual, which constitute a high priority, since the manual requires immediate distribution. In approximately 8 or 10 cases, revision of the manual is sufficient, the only training responsibility being to ensure that it is read and understood. Classroom instruction for changes of this nature is infrequent.

Training for Specific Problems

Training in this area is not typical in Intervac. All reservations employees are monitored both with and without their knowledge (although they are informed of this fact beforehand), on a monthly basis. The method is random, or of a "spot check" nature: once a month, a supervisor will plug in a 2-hour tape at a control centre in order to record an employee's telephone manner. The latter is then given the tape and asked to critique himself, after which the supervisor discusses the self-critique with the individual. In addition, supervisors monitor 5 randomly selected calls (without the employee's knowledge), as well as sitting with the staff member during 5 calls with the express purpose of monitoring their computer work. This system does reveal areas that require refresher training. A typical problem being discovered is that staff sometimes avoid answering questions although the information is contained in the Reservation Manual.

During initial training, DRs are advised that if they experience excessive stress on the job at any time, they should apply immediately for either transfer or relief (e.g. being moved to a less stressful resort). This may also happen to staff who complete the reservations course and then find they are unable to cope with the duties that the job entails. If the company feels that they are satisfactory and competent, they may be moved to ticketing, for example, or some other administrative function. (In the past year, 4 employees who were at the top of their class and were thoroughly familiar with the computer, could not cope with the telephone calls and customers' complaints.) However, the employee is generally found to recognize this problem independently and to "self-correct".

Refresher Training

The Training Manager sends out a memorandum to all departments at least twice a year, to which he receives a very high response mainly dealing with specific requests for information needs, but also including original suggestions and criticisms. He announces the schedule of courses in the internal Wardair newsletter.

Training Staff

Doug Tompkins, the Manager of the Training Department, is assisted by training coordinators. There are 2 Training Coordinators in Toronto. A person in research and production - with an assistant - is responsible for research as it relates to training programs; he has a graphic arts background, necessary for layouts in the preparation of manuals.

The Training Coordinators are basically responsible for the preliminary and initial DR training, the RSVP, the "public contact" seminars, and the 1-day Corporate Orientation Program for new employees, which is run every 2 months in all stations across Canada.

Up until April 1978, Intervac had a Training Coordinator in Edmonton and Vancouver as well. However, the central department felt that it was out of touch with them. With the centralization of training in Toronto, it was decided to add a third Training Coordinator here shortly. Tompkins and 1 of the coordinators revised the RSVP program.

The manager is frequently invited to Community Colleges to present sessions on charter experience to Travel Industry classes. He has noticed a drastic difference in the level of interest in comparison to his own groups and, therefore, does not find the teaching experience at CAATs a rewarding one. His role on the Advisory Board to Humber Colleges Travel and Tourism Division and the fact that Wardair is recognized as the major charter carrier out of Toronto have led to speaking engagements at other colleges.

Tompkins taught PI and PII courses to his own staff, but they do not teach. One new staff training person with a psychology background may be qualified to perform that function shortly.

Training Department personnel travel a great deal; consequently, monthly meetings have to be scheduled to ensure that everyone knows what is happening and receives the latest information generated by the PD and Manual Revision Departments. Winter months are used for updating and refreshing skills. (At the time of this interview, 1 employee had just completed a course at Sheridan College in Written Communication which turned out to be Report Writing and, thus, irrelevant to the trainer's needs. Tompkins' own earlier experience in a Sheridan human relations course proved to be a positive one.)

Joining the Training Department staff usually constituted a promotion. A new employee about to present the DR course for the first time in London (under Tompkins' supervision) was a former Agency Service Coordinator in Calgary. Even the graphic artist originally worked in the Reservations Department.

Training positions are always advertised in-house first which fosters good employee relations.

Training Department Manager's Background

Doug Tompkins was born in the Maritimes. He left high school with a scholarship for radiography at St. John's General Hospital, New Brunswick, which was affiliated with the Children's Hospital in Boston. On certification, he transferred to Boston, but lost interest in this type of work after a few years. Tompkins then attended Northeastern University where he obtained a teaching certificate, and returned to teaching radiation technology at Lincoln College, a division of Northeastern. About 10 years after completing high school, he decided in favour of a total career change, returned to Canada, and began with Wardair as a Reservations Agent. (His goal was the travel industry; having researched the companies in this field that were expanding, especially in the training area, he found that everything pointed to Wardair.) Since joining the company he has performed virtually every job that he teaches: manning telephones in Reservations for 8 months, then working as Reservations Supervisor and DR for a season; he returned from there to work in the Product Development Department, more specifically Room Control (Hotel Accommodation). The Manager of Intervac Training at the time promoted him to the post of Training Coordinator, and after a further 1½ years Tompkins became manager. When he joined the company 5 years ago, there were only 40 Intervac employees in Toronto; now this number has increased to a total of 400 to 500, approximately 350 of whom reside and work in Canada.

Make-or-Buy Decision

Except for RSVP, Intervac has designed all its training programs. An exception, technically, is the purchase of training films from ITT, including 2 or 3 films used in the human relations program, Pathway. Two of these films were made in England by the Monty Python group: "Awkward Customers" and "More Awkward Customers"; both have met with great success in the "public contact" course.

Intervac only buys outside to complement its own materials. The reason for this is that a charter company's training needs differ greatly from those of a scheduled airline. Pre-packaged training for the travel industry is mainly developed for scheduled airlines because they represent the largest share of the market. The charter organization is unique in the industry. Unlike scheduled airlines, charters carry mostly holidaying passengers which is seen as a definite advantage by the Manager of Training. He and his precessor believe that they can design more effective training with their own needs in mind, rather than adapt packaged courses; the Training Department's experience has been that "making" as opposed to "buying" facilitates classroom presentation.*

In preparation for designing courses, Tompkins, who is a member of the Ontario Society for Training and Development, reads extensively and conducts his own research. He has paid numerous visits to the Training Departments of both McDonnell-Douglas and Boeing.

New Function/Area

In response to uncommon questions from customers which the representatives found difficult to answer, Intervac is planning to produce a series of books on every destination it serves. This 70 to 80-page manual - to be called Travel Logic - will cover general information about the resorts not mentioned in the Reservation Manuals (such as the history and geography of a country). It will be available in all of the reservation and sales departments, as well as in the new office at the Eaton Centre. The first manual on Israel will be published and distributed shortly.

When the company adds a new destination recommended by market research (a new resort has been designated for next winter, for instance), an advance team from Product Development (PD) "scouts" the area 9 months in advance to ensure availability of acceptable hotel accommodation. (Otherwise the company would cancel the plan.) The PD team tries to gather as much information as possible which is then turned over to the Manual Revision Department and to the Training Department. Once the decision to move into a new resort is firm, a member of Tompkins' staff studies the information relayed by the PD team to determine what is still lacking, and then personally investigates the area, armed with a camera, so that an AV presentation giving the total picture can be assembled. A special new Resort Seminar is shown to all staff (followed by an intensive question period) at least 1 month before the new product appears on the market. The time lead is needed to ascertain which questions cannot be answered and to prepare staff adequately. The Intervac Training Department, therefore, is wholly responsible for developing AV presentations on all company destinations.

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* One exception is the Personal Sales Skills course, a sales program purchased from the Xerox Corporation, and used still by the Director of Sales, independently of the Training Department. This course does not require an instructor since it is on tape.

The Impact of Rapid Growth on Intervac

Mr. Ward's purchase of 4 wide-bodied airplanes (DC-10s) in 14 months meant not only large numbers of new staff, but additional supervisory skills on the part of senior staff, as well as special training for new supervisors. The decision to create the Pathway program was in recognition of the many supervisory responsibilities. On the other hand, it was felt that PII could not achieve the desired objective until the new supervisors had gained sufficient experience in managing a staff of 20 to 70/80. Efforts to explain communication problems to pre-supervisors have proved to be ineffective. After the 6-month period on the job, participants in PII gained a better understanding of such problems and their solution.

Scheduling of Courses and Course Evaluation

The period between the end of June and December is nearly exclusively committed to Reservation Training.

January and February are used to revise courses - both in terms of updating and improvement. At the end of every training course, trainers are given a course evaluation sheet which they take away with them and return to the Training Department. (They are urged to fill them out after a few weeks on the job.) Tompkins claims that these evaluations yield a wealth of information for course revision, improvement of instruction, and the ability of the instructor to communicate ideas. He tries to sit in on as many sessions as possible in order to provide feedback.

This period is also used to plan the year's programming. The schedule is then published in the March edition of the company newspaper, thus reaching all staff - other than reservation personnel. It gives locations, dates and times regarding the "public contact"/Pathway courses and the orientation programs, indicating to each base when the representative from Training Department will be in their city.

Intervac and Other Departments

As of February 26, 1979, Cabin Services and Intervac Training share the fourth floor of the Wardair building and enjoy working together. There is, however, no intention of creating a single training unit - although recently both groups designed an Instructors' Workshop simultaneously. A corporate training division is seen as a possibility, but it will have to preserve distinct and unique components.

At present, Intervac organizes and conducts "public contact" seminars for Passenger Services, and offers the Pathway series to them, using many of their own supervisors and lead agents. Passenger Services training is minimal, lasting no more than 2 to 3 days. Intervac courses are offered free of charge to staff from other Wardair departments.

B. Passenger Services

While the main function of Passenger Services is ticketing, checking baggage, etc. this department is responsible for a range of other functions. These include 1) preparing all the documentation required by the Canadian Transport Commission which regulates Charter procedures and limitations; 2) investigating, recommending and approving all schedules for Wardair's Marketing Division in Edmonton (e.g. the best arrival and departure times), and 3) investigating new locations prior to preparing a detailed report for Flight Operations on runway aids, navigation lights, fuelling, ground-air frequency, ramp positions, etc. Jack Gordon, Director of Airport Services, joined Wardair in early November 1978. Until then, he had been working at CP Air's Head Office after many years in various capacities, e.g. CP Air's Field Manager in Australia. Tom Lewis, who is in charge of Airport Services, worked for Pan-Am for 6 years and for an English Charter Carrier, Courtline, for 3½ years prior to coming to Wardair. The last 2 specialized functions mentioned above are the particular responsibility of Gordon and Lewis. As Director of Passenger Services, Gordon reports to the Vice-President for Management Development, whose immediate assistant is Barry Corbett, Director of Organization Development, based in Edmonton. Corbett deals with government regulations: he sits on numerous government committees; in addition, he handles the company's personnel, payroll, and benefit programs. (The establishment of a personnel department is being considered by Wardair.)

Passenger Services employs about 160 employees in Canada, and 30 overseas, mostly at Gatwick, with 6 in Honolulu. Passenger Services in Europe is under the direction of a London-based Senior Manager, who monitors the contracted Passenger Services in other European locations. In the off-season, London staff are moved to southern destinations such as Barbados.

Initial Training

Initial training is conducted on a local basis, and thus is the responsibility of the local manager. It consists of 1 week in a classroom, followed by a discretionary period in a "buddy" system. In most locations, a senior supervisor does the training; in some (e.g. Vancouver), the manager.

The probationary period lasts 6 months; a detailed assessment is given by all supervisors at 3 and 6 months. Both are submitted to the station manager, and discussed with the employee. (If problems develop, the trainee is attached to a different supervisor.) In a few cases, the probationary period has had to be extended; but as Wardair seeks to hire experienced staff, this only occurs rarely.

Gordon and Lewis are responsible for ensuring that training in Wardair procedures are conducted and updated. In addition, the department requires a weekly staff meeting during a "down" time (regular hours during which there are no flights), largely concerned with up-dating training and problem-solving.

Finally, every employee is briefed at the beginning of his/her shift, covering any and all anomalies relating to each flight.

Supervisory Training

Promotion to supervisor does not entail any special training. Such staff have usually been with the company for many years and have acquired experience relative to supervisory responsibilities on a short-term basis during relief periods, vacation of supervisory staff, etc.

A large number of supervisors passed through the supervisory Pathway training program developed by Tompkins. However, this is by choice, not determined by policy. All Passenger Services managers, however, meet semi-annually to plan manpower and performance, as well as the development of procedures.

Comparison of Wardair with Regular Airlines

In comparison to scheduled airlines, Wardair is very changeable, flexible and adaptable; the company can change schedules easily and open new locations quickly. Training problems, on the other hand are similar to those faced by the scheduled airlines. In the past, for example, the policy was to hire only experienced staff in Passenger Services. Due to recent rapid growth, the Passenger Services training program may have to become more formalized to integrate less experienced new staff, more part-time staff, etc.

The Role of the Canadian Transport Commission - Air Transport Committee

To enforce limitations on the charter airlines, ATC requires the name of every passenger, dates of travel, kinds of programs, manifests, etc. Passenger Services must conform and complete all required information which is filed through Intervac. The ATC sends inspectors from time to time, but this is not regarded as a problem.

The Northern Division

Wardair has a Northern Division, based in Yellowknife which appears to be totally independent of the rest of the company. If this division, for instance, requires clearance information and assistance to land in a southern destination, Passenger Services will provide personnel but will charge the Northern Division, at cost. All hiring and training for this branch of the company is a local and decentralized responsibility.

B. AMERICAN AIRLINES FLIGHT ACADEMY AND TRAINING CORPORATION

CHAPTER FIVE

AMERICAN AIRLINES FLIGHT ACADEMY AND TRAINING CORPORATION

The Training Corporation was separated from the American Airlines Flight Academy, and set up as an independent subsidiary on December 14, 1978. Mr. James P. Mulry, President, American Airlines Training Corporation was formerly Flight Training Controller in the Flight Academy. The Training Corporation is responsible for all outside training that must meet Federal Aviation Administration regulations (FAA), plus external sales of training of any kind that seeks to match those standards of quality. Still in the Flight Academy are Program Development (Research and Development) and a broad spectrum of conventional company training conducted in a large complex called the Learning Center. The Center trains Flight Attendants in all except emergency procedures, all other company service personnel, management courses, etc.

In the context of this case study, it is illuminating to examine briefly the factors that lead to the setting up of the Training Corporation as an independent service. Perhaps, first of all, there was a growing awareness that the Company had no scientific planning of marketing of training. Previously, they simply accommodated people who came through the door to tour the Flight Academy. Much of this turned into service of various clients, of whom Wardair is one; Quebec Air, CP, the RCAF, etc., are others.

Then, a number of new, long-term contracts served as catalysts: a ten-year contract to develop and provide training for pilots of the Sikorsky S76 Helicopter, a twelve-year contract with Southwest Airlines for the B737, and a request to develop a proposal for an installation in the UK to serve two major airlines there, unable to resolve differences between them that would enable them to set up their own common training facility. However, a more fundamental issue, in Mulry's view, was that of policy and strategies in training. A common misconception of senior administrators is that training is training, that it's all basically the same and should be brought together and conducted in one place, in a central training facility. Mulry's experience leads him to take a strong stand against centralization on the basis of three issues which were resolved by separating the Training Corporation from the Flight Academy and the Learning Center.

First is the danger of solving short-term problems by switching budget allocations. Mulry's example was the military: If the Flight Department has an appropriation of, say $20 million for pilot training, they might take six million of it to solve the problem of freight and other types of training, etc. "This invariably happens if the kinds of training are not separated."

Secondly, the objectives of the Flight Training Division are vastly different from agent, company-oriented Flight Attendant training etc. In the new, decentralized model, all the latter type of training are appropriately conducted at the Learning Center, separated from training, such as emergency procedures training of Flight Attendants, that must meet FAA standards.

Thirdly, Mulry found himself fighting conservative resistance to experimentation. Administrators of the Flight Academy resisted taking the Sikorsky training contract, because in Mulry's view, they were "born and brought up on wings, and wouldn't admit that the helicopter can be a good, safe means of transportation: 'that thing can't fly, it doesn't have wings'." Mulry, on the other hand, sees the helicopter industry finally on the threshold of the expansion that was predicted for it 25 years ago. Offshore oil would be impossible without helicopters, he suggests, and this is what's forcing the expansion: "It has to be safe." The goal of the Training Corporation is to make it safe, not from the point of view of equipment, but pilot operation. Current airplane simulators have developed motion systems from three to four to six axes of motion; Mulry was confident they would solve the tremendously complex movements of the helicopter in the simulator. At any rate, the Sikorsky contract was a major catalyst of the decision to separate the Training Corporation from the Flight Academy.

While these were the catalysts, the separation of the Training Corporation was to encourage planned growth. Long-range planning was initiated, beginning with a marketing study to set priorities. For example, they must consider the tremendous growth of executive aircraft (sometimes called corporate airlines), particularly in Africa, but also in Europe.

The U.K. training installation at Gatwick is tentatively planned to begin with one simulator in July of 1981, but 4 bays will be constructed and Mulry is confident all 4 will be in use by 1981.

An unusual new market is that of the nuclear energy interests, concerned about the Three-Mile Island disaster. The Training Corporation is exploring a training program for these type operators.

In the future Mulry doesn't see any limits on where the Training Corporation can go. Within three years, he predicts it will be the most profitable subsidary of American Airlines.

Research and Development

R & D is conducted by a Program Development group still lodged in the Flight Academy. Though the Flight Academy does not conduct seminars, its research directly benefits the entire industry. For example, a costly in-depth study established that 27 manœuvres could be reduced from aircraft to simulator training to meet FAA requirements. When the FAA approved this substantial reduction in airplane training time, it immediately became an effective ruling not only for AA but for any airline that could follow suit. This reduction from 8 to 1½ or 2 aircraft hours in initial (or transition) training still falls short of the Training Corporation's goal to eliminate the need for airplane training entirely in initial training, as it has already in recurrent training.

The Training Corporation points out that while cost saving is the determining factor in developing simulators, they also reduce the risk to life, energy consumption and pollution, and eliminate a large element of air traffic. Research on the simulator continues (Mulry: "we're always in the Research and Development mode") with emphasis on the extension of the motion systems and the use of the computer-generated devices in the Cockpit Procedures Trainer as well as the simulator, both developments related to the new S-76 helicopter training program.

However, the future is definitely the laser. In a cooperative effort with the military and a manufacturer, the Program Development group's research is advanced enough to indicate that a coordinated Laser Visual System can be produced, a great improvement over the computer-generated image, with the capability of delivering a fully coordinated image as the learner flies the simulator.

Video Cassette Training

The Program Development group produces video cassettes on an ongoing basis. There are libraries in all the American Airlines flight crew bases. When a new video program comes in, all crew are required to view it and sign a register to that effect. This procedure has been evaluated and found to be effective; the Training Corporation has been able to reduce Ground School time through this program.

Training packages are also produced for home study; usually such a program would focus on a specific problem. For example, when a wind shear problem caused an Eastern Airlines accident at Kennedy, the PD group immediately produced an AV program covering 'A to Z' on wind shear and rushed copies to every company base. Viewing and signing the record are company requirements, not FAA.

Greater still is the use of video cassettes for new route qualifications, at 2 levels. When AA is going to go into a new area, they ask FAA or other agencies whether videotapes or films exist. They may discover, for example, that Pan-Am has already developed AV for the route, or tapes may have been produced by Jeppeson & Co., the organization that produces the airline charts. Nevertheless, on routes newly opened by a U.S. airline, FAA requires that pilots must fly in first as an observer. However, FAA does admit that the video cassettes or film are just as effective. That is, the second level for the use of video cassettes for new route qualification applies in cases where the airline has established the route, but a pilot is flying it for the first time. When that happens, the pilot is required to view the appropriate videotapes prepared for route familiarization: approach to the particular airport, important aspects of the airport, etc.

In the development of these AV programs, the Program Development experts are supported by a Ground School instructor to provide the technical input. Not all programs are developed in-house. The Program Development group is small — only 3 course design experts — because the need is not constant and outside course design services are readily available. However, the Program Development group, with the instructors, maintains continuous evaluation and updating of the Flight Academy training. In this function, heavy onus is on the instructor to identify the need for change. There are about 40 instructors, who go through an instructor training course and are monitored by a thorough evaluation system. But for Mulry, a good instructor is one who conducts on-going evaluation and updating. "Just because a program that was developed six months ago was significant then, doesn't mean that everything in there is still significant; that program has to be purged of those elements that are no longer relevant."

The Training Program

Jerry K. Payne, Director of Commercial Training for American Airline's Training Corporation is also responsible for marketing of non-AA Training, e.g. supervision of the B737 Training Contract. He is a former Lt. Colonel in the Air Force who took post-graduate courses in Education when he retired. (Early retirement from the Armed Forces provides the Training Corporation with a ready pool of trained competent instructors.)

Course design is essentially based on task analysis and student-based objectives, ("organized like neurosurgery training") in that students are trained to proficiency on each task before proceeding to the next task.

The four-phase system of training has been described in the chapter on Wardair Flight Operations:

1. an AV tutorial (slide-tape theoretical presentation in learning carrels of the airplane systems)
2. a Systems Trainer (learning is demonstrated on a part-task level)
3. a Cockpit Procedures Trainer (fixed cockpit) followed by an oral examination , and 2:3 fold-out (the student studies at home — a kind of immersion that aims at understanding the logic);
4. the simulator, usually given by an FAA Inspector, (though, as in Wardair's case, most airline inspectors are found to be more thorough).

The first 3 phases apply to transition training to an airplane that is new to the pilot (e.g. in Wardair, promotion from First Pilot of a 747 to Captain of a DC-10, Captain of the DC-10 to Captain of a 747).

Recurrent training is referred to by Payne as diagnostic, because it calls for identification and correction of interference of previous learning in order to learn new emergency procedures. In addition, of course, recurrent training refreshes forgotten information — Payne says, "few keep checking the book".

Technologically, what the Training Corporation plans in the near future is the combination of the computer-coordinated Cathode Ray Tube with the Cockpit Procedures Trainer, which has already been developed for the new helicopter program but not yet for the other types of transition training programs. On the other hand, computer-assisted instruction is not considered advanced enough to have any significant application in the system. Progress of the learners through the training is entirely computer-recorded. Instructors get a computer printout each day for all their students, and each student has his own daily printout of his progress. A copy of the printout becomes a part of the permanent FAA record.

Career Paths in Training and the Learning Center

Flight Academy personnel are recruited from within the organization. Two senior staff members in the Flight Academy recently moved back into senior line management positions. However, others have chosen training as a permanent interest. A facet of management development in American Airlines that was not found in our other case studies, is that all managers must go through recurrent management training; it becomes a mandatory part of his employment file. The program is conducted by the company's own Human Resources Center at the Learning Center. It is a three-day program, of which Mulry said: "They do a pretty good job. I don't look forward to going through the HRC, but after you come out the other end, the evaluation is helpful — I use the results."

The Major activity of the Learning Center, however, is Flight Attendant Training (except emergency procedures) under the supervision of Ann Farwell. The unique feature, adapted by Wardair, is that a very small full-time staff runs a training program for many thousands of Flight Attendants by using a volunteer cadre of Flight Attendants as instructors. The volunteer instructors come for only one 7-month period, then return to regular Flight Attendant positions. Procedures, evaluation, etc. are developed with the aid of the Flight Academy Program Development group, and are coordinated with AA's Flight Attendant Procedures Office in New York. As in the case of Wardair, recurrent training is decentralized; there is a training supervisor at each AA base.

Maintenance Training

In his former role, Mulry used to run Maintenance Training on a centralized basis, but found that when 8 people had been scheduled for a course, only 2 actually came. He has become convinced that a more flexible, in-base program is necessary, even though it somewhat reduces control. Standardization can still be obtained without the extremely expensive centralized model, through rigorous program development that goes beyond FAA requirements, "because you have to go beyond them to stay safe". The need is to develop instructor training and continuously changing, updated, quality AV programs that move the training out to the maintenance base, where it belongs. Mulry suggests that a maintenance manager can predict training requirements only to a certain extent, that they are typically unpredictable to a large degree. Assuming a good quality-control program in the organization, with heavy use of Audio Visual and thorough training of instructors who deliver the courses on call, a decentralized, flexible program provides the manager the dual advantage of using down time and meeting training needs when the trainees are ready.

SECTION II

MINISTRY OF TRANSPORT

SECTION II MoT

MINISTRY OF TRANSPORT

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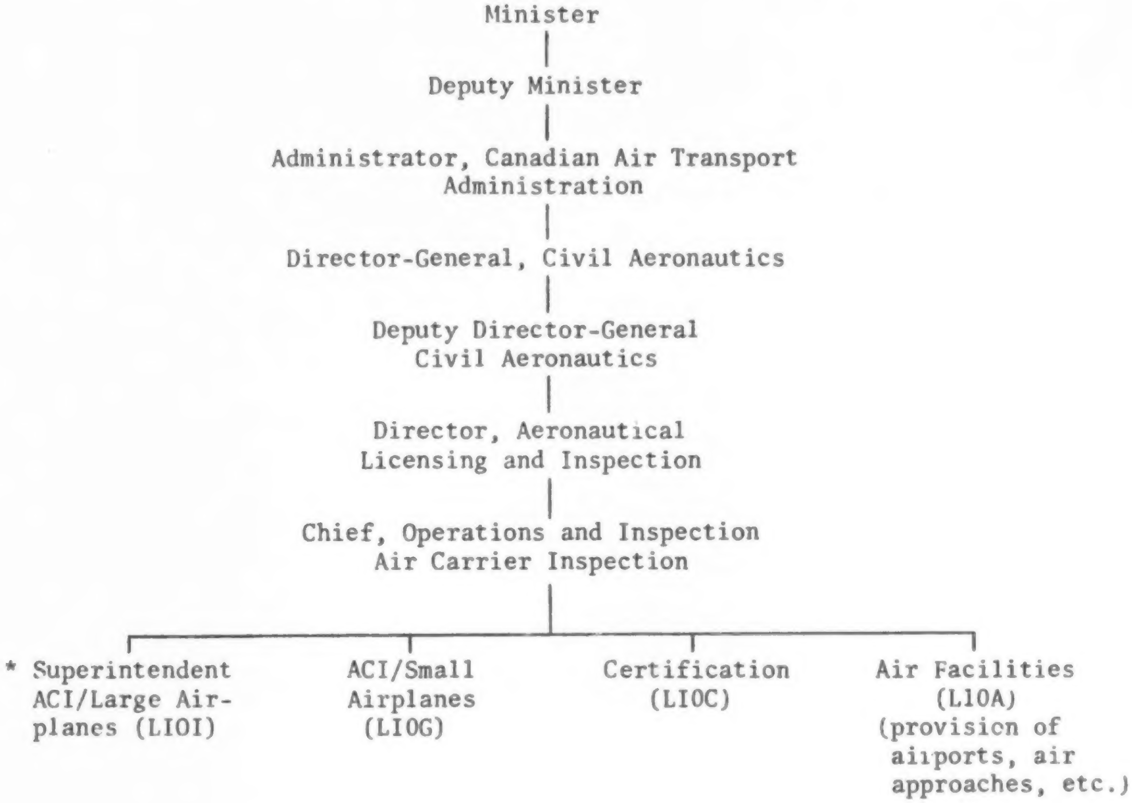
A. AIR CARRIER INSPECTION/LARGE AIRPLANES

CHAPTER ONE

AIR CARRIER INSPECTION/LARGE AIRPLANES ORGANIZATION & HISTORY

Organization



Minister

Deputy Minister

Administrator, Canadian Air Transport Administration

Director-General, Civil Aeronautics

Deputy Director-General Civil Aeronautics

Director, Aeronautical Licensing and Inspection

Chief, Operations and Inspection Air Carrier Inspection

- * Superintendent ACI/Large Airplanes (LIOI)
- ACI/Small Airplanes (LIOG)
- Certification (LIOC)
- Air Facilities (LIOA) (provision of airports, air approaches, etc.)

Air Carrier Inspection of Large Airplanes is divided into 3 sub-sections:

1. Operations (day-by-day operations coverd by inspectors)
2. Programs (pilot training, program development, training budget, Flight Operations)
3. Passenger Safety (Flight Attendant training, passenger emergency procedures)

We are concentrating in this chapter on the last 2, Programs and Passenger Safety.

Fifteen operations inspectors of large airplanes operate in 6 regions across Canada; each one is a specialist responsible for 1 or 2 particular types of airplane (i.e. on which he has been trained as Captain):

1. Atlantic - 1 inspector
2. Quebec - 3 inspectors, "plus 1"
3. Ontario - 3 inspectors
4. Central Region (Winnipeg) - 2 inspectors
5. Western Region (Edmonton) - 2 inspectors
6. Pacific Region - 3 inspectors

Eight inspectors remain at headquarters in Ottawa. (2 additional ones were expected to be hired shortly). Each region has its own superintendent. Inspectors can be delegated to other regions without difficulty. (LIOG for smaller airplanes functions on similar regional divisions.)

It is important to point out the difference between Operations Inspection of Large Airplanes and /or Small Airplanes apart from size of aircraft. While Operations Inspection of Large Airplanes (LIOI) is a national system that operates flexibly on a regional basis, having direct operational contact with the 9 airlines, Operations Inspection of Small Airplanes (LIOG), the sister section which acts mainly in a supervisory role, is a regional system (e.g. the Edmonton office is responsible for Wardair's Northern Division). In Canada, there are several hundred small air carriers, operating 1 or 2 airplanes. LIOG is estimated to have about 10% operational contact, occasionally checking pilots; LIOI has more than 30% operational contact.

The "plus 1" cell in Quebec requires further explanation. When Air Canada was ordered to translate its manuals into French, it established a specific bilingual cell to ensure that the manuals comply to a standard terminology. This cell comprises 3 inspectors in Ottawa and 1 who works out of Montreal. While monitoring the translations is their primary task; these "cell inspectors" are also responsible for flying and carrying out proficiency checks like their colleagues.

History of the Air Carrier Inspection/Large Airplanes Section

Until 1969, there were no regulations specifically related to Air Carrier (Airline) pilot training although there were MoT recommendations and and policy statements. MoT Air Carrier Inspection was virtually non-existent, with only 4 inspectors in the whole country: "it was a distance observation more than anything else". The Gibson Report following the Air Canada DC-8 crash at Toronto Malton airport emphasized the problem of this shortage of inspection, and identified severe weaknesses in the training system; reorganization and expansion of Air Carrier Inspection was a direct outcome of this report. The new procedures followed more closely those set out by the Federal Aviation Administration (FAA) in the United States, actually adopting a fair amount of their material and adhering to their guidelines in many ways (e.g. requiring specialist training for the insptectors), but the FAA's mandate is far larger than that of its Canadian counterpart.

As the Air Carrier Inspection Section needed inspectors experienced in large airplanes (over 200,000 lbs.), most of the new staff in 1972 and 1973 were recruited from the Air Force. Since then, the base has been broadened to achieve a balance, through hiring retired CP Air and Air Canada

Captains,* as well as senior pilots from medium-sized airlines. Length of service for present MoT inspectors ranges from 6 to 26 years approximately.

A cyclical pattern is discernible in the airline industry in terms of stability. From 1972 to 1974 it was on an upswing, increasing by 30%. With the decline of the economic situation, the industry stabilized around 1976. Currently there is a noticeable expansion again, "with no end in sight". Once more the section is short-staffed (as it was in 1976, when it lost valuable employees due to labour-management problems). As a result, the terms of reference for program planning and development are beyond the capability of available resources in the Air Carrier Inspection/ Large Airplanes Section. "The section now focuses on providing the best level of inspection and surveillance with the resources at hand." The "present problem is to attract suitably qualified pilots when a world wide shortage of pilots is developing and when MoT wages, fringe benefits and working conditions are not competitive with the Airlines." This present surge in training needs, concomitant with rapid industry growth, is recognized to be a 2 to 3-year response to the cyclical nature of the airline establishment.

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*Who, after retiring at 60, can work for MoT for 5 years.

CHAPTER TWO

MoT AIR CARRIER INSPECTORS

MoT Inspector Training

When the Ministry of Transport hires an inspector, regardless of his background, the Air Carrier Inspection Section sends him to a recognized airline training course to be trained to Captain standards.

Initial and recurrent training for inspectors is identical to that required of airline pilots. Training is restricted to the specific types of airplanes for which the individual is responsible. Every 6 months, an inspector receives 6 hours "left seat" simulator training for each aircraft, plus 1 hour of flying. In other words, 12 hours Captain simulator training, plus 2 hours flying per year, per type of airplane type. As it is very expensive to buy flying time, inspectors fly MoT airplanes (Beech 80s, DHC-6s, and DC-3s) for a minimum of 100 hours per year. When a simulator is not available for a particular type, they buy approximately 5 hours of flying time per year on the airplane.

Simulator training lasts 4 hours plus 2 hours for the check by Air Carrier Check Pilots; and Check Pilot can fail an inspector necessitating the purchase of additional training time. "Having the Check Pilots reverse roles keeps us honest." In the United States, the check is carried out by FAA inspectors. In addition, once a year, the inspectors are given 5 days of technical training on the airplane of which they are in charge. They generally gain more technical experience with each type than most line pilots. MoT inspectors also sit in on FAA technical boards.

Once every year (at a minimum), the group of air carrier inspectors organizes a mini-conference or seminar, as a rule consisting of a closed session for 2 to 3 days, followed by 1 day with staff from other MoT branches, and 1 day with representatives invited from CALPA (Canadian Airline Pilots' Association to which Wardair does not belong), or from the various airlines.

From time to time Air Carrier Inspectors attend symposia and seminars run by other groups (e.g. the Federal Aviation Agency, the Dutch Airline Pilots' Association, etc.). The FAA, for instance, notifies MoT of planned events, and includes Air Carrier Inspectors among its own representatives as part of its organization. Annual British seminars in Pilot Human Factors at the University of Birmingham attract airline and government representatives from around the world. Topics deal with presentation; human interpretation; cockpit design, seat design (pilots frequently suffer lower-back ailments); disorientation (biological timeclock changes); and a serious problem encountered by KLM which, after giving its pilots sleeping pills during crew layovers found that even the safest of these drugs have an accumulative, half-life factor of up to 30 days.

Policy on participation in continuing education seminars is flexible, without guidelines. Most of the inspectors, coming from the Military and airline management, have administration backgrounds. Former Air Force personnel especially have had schooling in instructional techniques. However, the Passenger Safety inspectors are encouraged to attend public speaking and instruction courses. In sum, the continuing education of Air Carrier Inspection staff enjoys strong support wherever it is available. The Head of the section and another inspector are scheduled to take a course entitled Formulation of Budgets. Typically, such courses are offered by the Public Service Commission, Transport Canada, or the FAA, including workshops for inspectors on the systems approach to inspection. The first 2 of these were given by FAA, who came to Ottawa on invitation; subsequent ones are now available internally on an ongoing basis. It was this workshop experience that gave rise to the Training Group (LIT), in recognition of the fact that a whole range of systematic training was needed.

Background of Staff in Air Carrier Inspection of Large Airplanes (LIOI)

Operations Inspection staff have a minimum of 20 (or more) years of experience on large airplanes. A considerable number of these have been recruited from the military, since it is difficult to attract airline pilots. (An Air Canada L1011 pilot earns $80,000, whereas a MoT inspector earns less than $30,000.) Most of the 23 inspectors are equal in rank, i.e. CAI3s (Civil Aviation Inspector). One superintendent is a CAI5, and 2 supervisors belong to the CAI4 level.

The superintendents in the individual regions may have come from the LIOI section; however, in the capacity of superintendent they have assumed broader responsibilities and are, therefore, excluded from the figure of 12. (Out of 6 regional superintendents, 2 originally worked in Air Carrier Inspection of Large Airplanes.) The Regional Superintendent for Air Carrier Operations is responsible for overall inspection of commercial airline operations including small airplanes, large airplanes, rotorcraft and certification.

A further breakdown of the inspectors' background reveals that half are former 707 Captains in the Air Force, some previously managed small airlines, and one is an ex-Director of Flight Operations for Air Canada. The Senior Captains, with whom the inspectors are working in the airlines, trained with them in the Air Force in the 1950s; some of the junior pilots were trained by them (as instructors) in the Air Force as well.

The Role of the MoT Inspector (ACI/LA)

Unlike FAA inspectors whose role resembles that of policemen, MoT inspectors have a different self-concept of their role: they conduct tests, as well as monitoring those conducted by company Check Pilots. In monitoring a test, they try to be unobtrusive, particularly with the younger pilots: "we fade into the background". This strategy permits inspectors to observe how a pilot would operate normally, not just when he is being marked. Besides, they wish to avoid an artificial "the inspector's here" situation. After the test and de-briefing, inspectors talk to the airline's Check Pilot who then in turn debriefs the trainees.

According to air regulations, the Minister of Transport is responsible for the operation of Canadian registered aircraft anywhere in the world. Thus, inspectors perform in-flight checks on Canadian carriers beyond Canada's borders. Similarly, when Canadian airlines train outside of Canada (e.g. Wardair with American Airlines and Boeing), MoT inspectors conduct checks at these installations. Their target is to carry out in-flight checks on every airline route at least once a year.

A number of FAA inspectors are stationed overseas (e.g. London, Frankfurt); some are sent abroad to conduct recurrent training checks if these fall due while pilots are outside the country for long periods. (The airline company is required to pay for the inspector's costs.)

Unlike FAA, MoT cannot afford to station its inspectors overseas. Therefore they wait until the pilots return to Canada, or authorize a cadre of Senior Pilots in the company to conduct recurrent checks outside the country; in turn, they (the inspectors) will perform the checks on these Senior Pilots.

Public Relations

MoT staff tries to be careful with statements relating to contentious issues in order to avoid being misquoted. There have been 2 recent cases of false claims: 1) in Air Canada's labour dispute, someone falsely claimed to be a MoT official to the press; and 2) in a report of a trivial aircraft mishap, the press wrongly "quoted" a MoT inspector stating that the airplane should not have been flying.

Sometimes resentment over an inspection is voiced on the basis that it may delay departure.* One day, an inspector called from Edmonton to advise his section head that someone would blame departure delay on a MoT inspection, when in fact the airline had been late loading passengers.

MoT Relations With the Airline Industry

An increased general awareness of one's rights in relation to the government is evident today. This applies also to the airline industry. Imposition on the industry has been replaced by consultation. Only a few problems exist with some pilots misunderstanding the regulations. In such cases, the section assists them. As in any other business, there is a very small percentage of "bandits"; Air Carrier Inspection tries to persuade them to change, and if they refuse takes whatever action is required, including court action, to ensure compliance or alternately to stop the operation.

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*After a 5-minute delay, some companies request a report.

Apart from these rare occurrences, the quality of the relationship between MoT/ACI and the airline industry can be termed excellent.

Program Development

In 1978 an additional section devoted to Training (LIT) was established in direct line to the Director-General of Civil Aviation. A consultant with lengthy experience was hired when the superintendent of the section, who had worked extensively with the FAA, fell ill and had to request a leave of absence. The new section was specifically set up in recognition of the lengthy lead time necessary to develop rigorous, long-range training programs for inspectors. LIT plans to devise a general training program for all aviation and technical inspectors. The schedule aims at developing the first course by October 1979. Since there has been no such training program thus far, it will have to begin with the basics.

Until now, inspectors responsible for pilot training were only trained on the job which is now regarded as unsatisfactory — "training by osmosis: trial and error and more error than trial". Several sections, including Air Carrier Inspection/Small Airplanes, and Accident Investigation, developed 4 brief programs in the last few months, but this accounts for only 10% of the total number of inspectors (or 30 out of 300) in the Ministry of Transport. The length of time needed in this highly technical field to develop even the shortest training presentation is detrimental as far as budget policies are concerned. These 4 very brief programs required 5 months of planning, necessitating, for instance, the release of the Passenger Safety Inspectors from their jobs for 2 days to ensure the accuracy, comprehensiveness and effectiveness of a 2-hour session.

Basic training is to be followed by more advanced supervisory training, such as the Air Canada Middle Management course given by the Transport Canada Training Institute (TCTI), and found to be identical to the Military's Middle Management course taught several years earlier.

The delay in program development has been caused wholly by budgetary constraints, restrictive training policies, and staff shortages experienced through MoT's loss of employees to the airlines in their current expansion cycle. Many attempts to obtain training were made in the past; for years MoT/ACI staff had expressed the desire to enroll in the 2-month FAA basic course on air regulations for inspectors, return to their jobs for 2 months and then continue with FAA's specialist courses. They realized that, with most of Canada's airplanes being American, they had to familiarize themselves with FAA regulations, especially since theirs were the only standards available. Both interviewees felt uncertain about LIT's commitment to the new inspector training program on a long-term basis.

At present, arrangements are being made for all Large Airplane Inspectors to take an FAA course on evaluating simulators. As the latter become increasingly important in pilot training, the inspectors must have objective standards with which to evaluate them. (Some effort has already been made in this direction by establishing a sub-section composed of a staff of 4 to deal with Check Pilots.) This 3-year project is seen as an essential part of the ACI/LA Superintendent's mandate. During that time, the section has to divest itself of other non-vital, time-consuming functions for which requests are received.

Future Plans and Changes

One of ACI/LA's goals for the next 3 years is to reach all 55 of the air carriers for which the section is responsible; thus far, it has still not passed the 40 mark because of the great distances involved in some cases.

The section's superintendent would like to see better surveillance of initial training and of pilots who have not changed from one particular type of airplane for 5 or more years. The line Check Pilots are excellent, but many of them are young; it is difficult for them to check pilots who are senior to them. There is a great deal of peer or professional pressure on the young pilot.

Greater objectivity in standards is desirable as well. The Air Navigation Orders, Series 7, #2 which is 9 years old must be updated through short-term amendments. The LaFleur Study is currently examining the whole regulations and orders system with a view to revising it. (FAA recodified its entire system 8 years ago.) The Ministry of Transport has a peculiar, very complex 3-level system: the Aeronautics Act (i.e. "the law"); the Air Regulations; and the Air Navigation Orders – which are the amplifications representing the means of implementing the Regulations. In effect, in contrast to the United States, but similar to Great Britain, Canada has one extra set of laws. If a specific question is not covered in the Orders, one would have to check through all 3 levels – an extremely complicated process indeed. There are basic differences of approach and philosophy among the 3 countries: in Great Britain anything is allowed provided that it is not expressly forbidden in the regulations; in the United States, nothing is allowed unless it is specifically covered in FAA regulations; in Canada, MoT is caught in the middle. It is this perplexingly intricate three-pronged system that is being reviewed — "as any legal system requires review".

CHAPTER THREE

PILOT TRAINING AND FLIGHT OPERATIONS

Pilot Training Requirements

First and foremost, in Air Navigation Orders terminology, all training programs must be approved by the Minister.

Interestingly, while competencies were always the main concern, both the FAA and MoT originally stipulated the number of hours of training required for each program, e.g. initially 120 hours of Ground School, plus 60 hours of flight training for a DC-8 pilot. Air Navigation Orders, Series 7, #2 specified the number of hours required in each case: initial training, Ground School, flight training, and simulator training for the Pilot, Flight Engineer, and Cabin Attendant — in addition to the following items that must be covered in each pilot training program: Ground School, initial flight training; emergency training; recurrent training; line indoctrination; and route qualification. Air Canada was effecting excellent training in less than the required time. The company's understandable protests were instrumental in persuading Transport Canada to shift its focus to the acquisition of proficiency and to set approximate standards for Cabin Attendants as well as flight crews. This change of focus which treats the number of hours as a variable, is regarded as a considerable improvement by MoT, radically reducing training time while laying more stress on competencies, the end product.

The flight training concept also differs markedly from MoT's approach of a few years ago, whereby 5 to 6 weeks of Ground School training in every facet of the airplane was required — no matter how irrelevant to the flight operation. If anything happened, the crew could not act on it, and worse, it invited the flight crew to attempt diagnoses with a high likelihood of being wrong, thus impeding their efforts. At present, pilot training on systems responses is under the philosophy that it is sufficient to teach the basic components of the system; their function and operation; how to recognize a failure; how to circumvent it; and what facilities are lost in that case.

> "If the pilot follows the procedures in the manual, and aims for the end result, he should be doing the very best job in relation to that system. Our job is to constantly review the procedures to make certain that the carriers don't inadvertently change something. This can be done in a number of ways. Though we don't spend as much time line flying as the carriers, we acquire more technical background; we also train and maintain contact with the different companies."

All changes must accord with the requirements of the actual operating procedures. This applies equally to the training which is administered slightly differently by each airline. The Ministry of Transport will not interfere; training methods can be flexible, as long as the minimum standard is met. It is a question of flying the airplane safely.

Regarding resistance to training in a situation where it is so continuously demanded, there are a few individuals who develop negative attitudes out of a lack of confidence in their own abilities (the person who is nervous about passing a course). An example is a pilot with the ability and seniority to advance to a higher post in another type of aircraft, but does not apply because of his fear of failure.

Training Costs

Wardair is a special case, very different from the scheduled airlines, such as Air Canada, where there are 3 classifications of pilots: Captain, First Officer and Second Officer (Wardair's Flight Engineer). The various types of airplane are ranked according to size and seniority. With the exception of the DC-9, of which there are only 2, each airplane carries 3 pilots. If the 747 Captain retires, a promotion cycle may involve up to 18 moves. The cost of training a 747 Captain is $23,000. A DC-8 First Officer costs about $10,000; the training cost relative to a 727 Second Officer amounts to approximately $7,500. This covers only school costs, and does not include salaries, expenses, or temporary loss of personnel use. Five years ago, airlines estimated that the capital (overall) cost of training a 747 Captain was $75,000 - exclusive of recurrent training. Wardair is in a better position than Air Canada, because it owns only 2 types of aircraft; the more diversified an airline is in this regard, the greater the expense of training for promotion.

Pilot Proficiency: Development of Training Standards

How do you measure training output against pilot proficiency? "Unfortunately, that requires a very subjective assessment. It's not like adding a column of figures which produces a right or wrong answer." Air Carrier Inspection/Large Airplanes' staff are selected according to level of experience in this type of assessment. To cite an example, the Acting Superintendent of this section used to be an Air Force instructor on flying boats during the 1950s. In the early 1960s he was a flying instructor on the Prairies, and at that time took a course called "Unit

Instrument Check Pilot" which prepared him for instrument rating checks on military pilots to a specific standard of accuracy in approaches, navigation, etc. Following that, he became Unit Instrument Check Pilot in Transport Command. Most of the Air Carrier Inspectors have equivalent backgrounds in Air Canada. Basically, their responsibilities revolve around performing checks against standards of proficiency and accuracy.

When a new employee joins the section (ACI/LA), he is attached to experienced inspectors for a flexible period of time. He must conform to a certain standard set for inspectors' on-the-job training. An attempt is made to procure initial training for the new inspector outside the country, where he is encouraged to spend time, for instance, in an FAA office for the purpose of observation. Thus, a comparative element is embodied in the training of Air Carrier Inspectors' staff.

> "We're not entirely happy with that at the moment. Actually, we have been working on a project for 4 years — a very difficult undertaking — to try to move from this subjective to more objective means of assessment."

The ultimate goal involves assigning objective standards to inspectors as well as company Check Pilots. At present, a pilot must fly to specific standards in order to obtain various levels of instrument ratings. (Air Navigation Orders, Series 7, #2, Schedule C — "the Bible" — stipulates a specific check which must be performed before a pilot can be qualified to fly a particular type of airplane.) Yet it is subjective testing — which applies to both initial and recurrent training.

There is a range of assessments: in visual simulator training, a pilot has 26 seconds to make a decision on an instrument approach set to a ceiling of 200 ft. and one half mile visibility. If he does not land accurately on the airport runway, it is here a case of objective criteria, but at other times the criteria remain subjective.

Air Canada simulators, at present the latest in sophistication, cost in the vicinity of $6 million each. The visual, computer-controlled simulation training is common to Air Canada, American Airlines, United Airlines, and others. At the moment, rapid expansion is creating difficulties in finding training facilities when they are required; consequently there is much searching and changing of schedules. Air Canada has developed an audio-visual simulation that is at present most advanced (AVCAT). Essentially, questions challenge the pilot, and his responses are scored on a computer. On his recurrent test after 6 months, a flag may alert the Chief Pilot that Captain X had better be called in because he is behind in his "homework". His recurrent learning is thus "self-regulated".

Corporate and Private Pilots

If a company like Imperial Oil has an Operating Certificate, it falls under MoT's Air Navigation Orders. Nevertheless, the Government of British Columbia's airplanes are not regulated by the Orders because they do not have an Operations Certificate. They are, in fact, investigated by an Air Regulations Section, whereas the corporate owners of private jets have voluntarily agreed to comply with the regulations of the ANO 7, #2. Periodically, companies ask Air Carrier Inspectors to conduct a check, or to provide information. Legally, all that is necessary is an instrument rating ride once a year, conducted by the Air Regulations Branch, in order to maintain their licence.

An individual holding a pilot's licence is not supervised; he may not fly regularly, but only once a year: i.e. his instrument rating ride for licence renewal. "Good airmanship cannot be legislated"; qualifying for maintenance of competency differentiates the captain from the pilot. This policy enables an individual who has not operated an aircraft for years (other than carrying out a check ride) for years, to fly an airplane with which he is not familiar — at any time.

In the United States, an instrument rating is valid for life. Recently, that country initiated a voluntary proficiency test for private pilots. (Some companies refuse to rent an airplane unless the pilot first passes the voluntary test.)

On the whole, Transport Canada feels that the private pilots' associations "run very fine shops".

Recertification

Licensing authority for airline pilots is inherently different from the health care professions (e.g. medicine) in that the latter licences its own members. "A qualified doctor or nurse can return to the profession after an absence of 20 years without recertification." The interviewees strongly urge recertification tests for private pilots, however basic they may be. Currently, a medical examination once a year up to 40 years of age, and every 6 months thereafter, is the only requirement for licence renewal. Many accidents involving private pilots occur, mainly in the United States where there are about 400,000 licenced private pilots.

A new attempt has recently been made to keep national records on private pilot tests, in order to provide feedback to the school as guidelines for testing standards.

Specific Problems

Two problems which naturally cause the most concern are pilot error and malfunction of the airplane. The interviewees disliked the term "pilot error" intensely. Instead, they prefer to speak of a "pilot or training input (into an accident)". Three examples were cited. The first one referred to the DC-9 that skidded off the runway at Toronto International Airport. It was felt that the pilot was not entirely to blame for this incident, rather something was amiss in the training method which was deemed "not quite correct". ... "In a way, the pilot was caught up in the system." In a rejected takeoff, the pilot must remember a certain sequence of events: close the throttles, deploy the spoilers (which come up and put weight on the wheels), lift the reverses — while simultaneously applying the brakes. What it really means is, "jam on the brakes as you close the throttle; just stand on them." As it was explained to us, pilots tend to grow rather fond of "their" airplanes, and the idea of standing and jamming on the brakes is foreign to their nature. When MoT realized what was happening, its instructors — in the course of conducting a check on pilots in the simulator — began to really stress the importance of applying the anti-skid brakes immediately (within the sequence of instructions).

The second example given related to a strange phenomenon. A particular type of airplane alternately went on and off the runway during landing procedures. No damage occurred. Curious and baffled about this, the Air

Carrier Inspection/Large Airplanes' inspectors read the flight data which did not reveal anything out of the ordinary. Then it happened again with the same airplane, flown by a different pilot. The Head of Air Carrier Inspection/Large Airplanes became direcly involved at this point and carried out a proficiency check on the pilot. Still no clue was found. In the course of some line flying with the 2 crews the mystery unravelled. What had occurred was that on long flights, as soon as the airplane reached the desired height and levelled off, the pilot would adjust the chair to a more comfortable position. When he had to land 4 hours later, the seat was not positioned correctly to allow him to reach the rudders and have full application of the brakes. This "easing the chair back a little" and not returning it to an upright position had become standard. Both the section's Superintendent and another inspector notified the Chief Pilot accordingly; an investigation verified the finding. The problem has not recurred since. "In that specific case, we perhaps prevented an accident by identifying the problem. Once we've identified a training error, we communicate with the airline and they respond immediately by rectifying it."

The last example involved a series of crashes — first of Boeing 707s, then DC-8s. Jet pilots were following the practice of earlier models which in heavy turbulence slowed to 1.6 of stall speed (stall speed plus 60%) in order to prevent damage to the aircraft. The pilots of these 2 airplane types did not realize that the slowing behaviour was unnecessary for jets which pose no such danger. All crashes were caused by losing control, i.e. pilot interaction with new engine designs. As a result, designs and pilot training underwent changes to secure a better fit.

Aircraft malfunction and airworthiness have no connection with the

Air Carrier Inspection sections. Both are covered by the Maintenance Department; as soon as a malfunction is discovered (e.g. the DC-10s), all airplanes are grounded, and the malfunction is inspected and rectified. If the inspectors responsible for Flight Operations and Passenger Safety find anything that suggests a failure they report it to the Airworthiness Maintenance Branch.

Problems of a different kind surface occasionally. The stationing of pilots overseas for lengthy periods complicates the semi-annual medical examinations, which may have to be postponed until the pilot can see an authorized doctor. MoT/LIOI inspectors must also pass these medical tests. (One recently failed his medical and can no longer act as inspector, though he was able to transfer to another post.) This policy, which is not enacted by the FAA quite as rigidly, is currently under review by the Ministry of Transport.

CHAPTER FOUR

THE FLIGHT CREW

Flight Engineers/Second Officers

The function of Wardair's Flight Engineer is assumed by the Second Officer in other airlines. Their training is identical for all flight systems operations (i.e. the airborne portion), including commercial pilot rating. Procedures taught encompass training to board the airplane; performing the safety check prior to start-up; supervision of the fuelling; assisting the other members of the flight crew in the starting of the engines; flying and cruise control; airport approach procedures; shutdown of the aircraft. There is 1 slight variation in approaches: the Second Officer must cross-check the other 2 pilots (which is not normally expected of his colleagues in Wardair). The major differences lie in their respective responsibilities on the ground.

Previously, the Flight Engineer was required to have an Aircraft Maintenance Engineer licence. (Anyone was permitted to work on the aircraft, but to check a carrier for airworthiness presupposed possession of an AME licence — not demanded of Second Officers.) AME training is lengthy, lasting more than 3 years — unlike the much less complex Second Officer examination.

Non-scheduled carriers, such as Pacific Western, Ontario World Air, Quebec Air, and Wardair, generally carry Flight Engineers rather than Second Officers. The reason for this practice is that at their destinations they have ready access to maintenance or contract maintenance personnel.

Team Work Training: The Flight Crew

Accident investigation into the crash of the DC-8 at Toronto revealed that the landing manoeuvre broke down because the set procedures (requiring team work) were not adhered to. The Air Canada crash was an example of 1 individual applying his own precepts against company procedures; training had not been effective enough to override this.

When MoT performs an initial check ride on a Captain its inspectors observe the extent to which he makes use of his crew. The Ministry of Transport as well as the airlines - especially Air Canada - do not encourage individualism among crew members on the flight deck. The First and Second Officers' duties fall into a crew concept.

A DC-8 or DC-9 Captain is accustomed to working with only a First Officer. When he moves to an L1011 he may move ahead too quickly, and the Second Officer may have to warn him that he has not yet finished his check list.

The goal which training attempts to attain is that 3 perfect strangers can still achieve optimum crew effort. An incident related by 1 of our interviewees illustrates this point. Once he paid a visit to a United Airlines 747 flight deck (U.A. employs 8,000 pilots to Air Canada's 1,700); when the 3 flight crew members arrived they introduced themselves to each other, and immediately took off. "It was beautiful because they had all been trained to fly to the same standards."

Among the crew of the individual airlines, not only should each member respond in an identical manner, but he should do so by using exactly the same words (as stipulated in the airline's procedures manual). For instance, if the call for the check is "switch on", he should say "switch on" — not "on" or "yes" or "uh huh". There are some nuances from airline to airline, however. When preparing for takeoff, the Eastern Airlines crew will say "light off, #2; Air Canada, on the other hand, calls out "light on, #2". MoT insists on the airlines' cross-checking their crews. Should the inspectors find lack of uniformity in their cross-checks, they report it to the Chief Pilot.

If Air Carrier Inspection (LIOI) is impressed with a procedure of 1 particular airline, it may recommend investigation to the Chief Pilots of other airlines, leading to new standardization.

Airline procedures vary greatly. In most airlines, when the aircraft reaches VI (the safety speed), someone calls "VI", and then "rotate", etc. Air Canada has a "quiet cockpit"; briefing occurs prior to rolling on the runway. In other words, nothing is said on an Air Canada flight deck during takeoff — unless there is an emergency. The first Officer with CP Air, in contrast, continuously calls his meters to confirm that they read the same as the Captain's, which serves as a double check of procedure. "The whole point of training again, is standardization. Wardair is a very highly standardized operation."

CHAPTER FIVE

PASSENGER SAFETY/CABIN ATTENDANT TRAINING

The Passenger Safety section sets Ground School and flying tests for the various airline schools in the country, and monitors them to the extent that a high failure rate can result in firing the instructor.

While in pilot training at least some objective elements are supplied by instrumentation, Cabin Attendant Training is totally subjective. Instructors' guidelines, written in 1969, are based on the Air Navigation Orders, Series 7, #2; ANO7 - #3 form the basis for guidelines relating to smaller airplanes.

Passenger Safety has a staff of 6, consisting of 3 ex-navigators and 3 former Cabin Attendants. A prerequisite for an inspector in this section is 5 years' experience in aviation, preferably with supervisory background. The Head of Passenger Safety (PS), who was an examination officer for 7 years, runs an inital training program of 6 to 9 months. The reason for the long training program is the need to become familiar with the whole range of air regulations (many of which have only been in existence for a few years), and FAA regulations in the United States. One ongoing concern is finding courses for PS staff. For instance, the FAA in Oklahoma City is offering an Emergency Procedures Workshop covering all air carriers this winter. Everyone in the section is planning to attend; following this course, PS will develop its own workshops — to be held in conjunction with sessions for training instructors from the various airline companies. Future staffing policy will require all PS staff to have Cabin Attendant experience.

Passenger Safety inspectors are responsible for airworthiness from the hangar through to on-line inspection, including stores and procedures manuals. When they inspect a cabin, they observe cabin procedures and the attendants' checking of safety equipment. If a breakdown in the latter (i.e. part of the maintenance system) is detected, a report is dispatched to the airworthiness branch. However, the main thrust of the PS inspectors is aimed at training. It is accepted practice to send staff to a variety of schools and bases to audit all the initial training on a selective random basis. (If Wardair administers 10 courses, the PS staff will sit in on 1 of them.) Checks are performed once a year each for the major air carriers and for recurrent training at every base. Budget controls decisions with regard to frequency of inspections. In-flight cabin checks on charter airlines occur sporadically, because often all seats have been sold.

Passenger Safety uses American Airlines as standard for its own manuals. In the early days, there was only 1 person to amend and update 56 manuals; at that time, United Airlines was used as guideline. Besides taking charge of the paperwork, this indiviudal — now the Head of Passenger Safety — was also responsible for simultaneously supervising rotorcraft training and navigation; e.g. he trained 2 rotorcraft pilots for the position of cabin inspector, 1 of whom he had previously trained at United Airlines.

When PS staff were expanded to 6 only 4 years ago, all flew down to the American Airlines Flight Academy in Dallas/Fort Worth, Texas to familiarize themselves with the simulator. Again, when PS negotiated its agreement on cabin attendant training with Wardair, all inspectors but one returned to the AA installation. One acted as inspector of the training course, and the rest observed the course being taught as part of their own training. In sum, the American Airlines simulator is "the state of the art."

At the time of the interview (May 1979), it was believed that within 1 month – according to an agreement with Air Canada – there would be an Emergency Evacuation Trainer in Toronto, following the installation of an EET in Montreal, and of an Eastern Provincial Airways simulator earlier in Halifax. Another EET was being planned for Vancouver. Emergency procedures training could not be conducted on an airplane (e.g. an airplane door costs $50,000).

Until its fairly recent revision, training of cabin attendants used to comprise many irrelevant facts and procedures – such as gear ratio, and what speed it would have to reach before it blew off. Cabin attendants are now tested on lights, First Aid, emergency equipment and procedures, and of course, doors – among other cabin services. "If they can open the door, they've passed the test."

Passenger Safety emphasizes competency above everything else. The interviewee felt that examinations test the instructor, not the student. It appears that many cabin attendant examinations have been poorly written – open-ended, without beginning or end, some without verbs or a subject, and requiring the memorization of given lines.

> "Half of the examinations, set by the instructor, are invalid because no important piece of knowledge is covered. The same test could have been conducted orally."

Now and then a cabin attendant trainee does fail. To cite an example, the last tests carried out by Trans World Airlines (before May 14, 1979) showed that 3 students could not open the door; they were failed immediately without being given a second chance. Opening the door is considered the most important aspect of a cabin attendant's function in the case of an emergency.

B. AIRWORTHINESS: MoT MAINTENANCE LICENSING

CHAPTER SIX

AIRWORTHINESS: MoT MAINTENANCE LICENSING

The Airworthiness Section of the (Regional) Canadian Air Transport Authority is responsible for Maintenance. Partly because of Wardair's rapid expansion to 6 large airplanes, and partly because the complete reorganization has been moved from Edmonton to Toronto, an inspector has been concentrating on the company's Maintenance Division for 2 to 3 days per week.

For large aircraft — such as Wardair's, Aircraft Maintenance Engineer (AME) licensing consists of 5 examinations: air regulations, air frames, turbine engines, pressurization and the type of aircraft examination. MoT carries out surveillance on all airlines every year, increasing it when complications arise to as frequently as once a month.

Each company is provided with a maintenance manual that remains nearly unchanged: it covers the operation of the organization, describing the system of maintenance control within the company. It is amended periodically to include additions or deletions of aircraft types. Problems relating to the aircraft are covered in a mandatory system of Airworthiness Directives issued by the FAA (as the official agency of the country representing the airplane manufacturer); compliance is also mandatory by law in Canada. "An Airworthiness Directive may also be issued by our Departmental Headquarters in Ottawa against aircraft manufactured in another country such as the United States, but it would only be effective against aircraft registered in Canada."

The Airworthiness Directives usually stipulate a deadline for compliance. If the work has not been performed within a certain time frame, the aircraft cannot be termed airworthy and is, therefore, grounded; should the airplane continue to fly in defiance of the order, it constitutes an illegal act, chargeable under the Aeronautics Act. At a lesser level, there is a continuous stream of the manufacturer's service bulletins which recommend non-mandatory changes; copies of these are also available in MoT's Air Carrier Inspection/Large Airplanes section. In cases where a recommendation is ignored, the company cannot be charged under the Aeronautics Act, but might be open to civil action or lawsuits in the event of an accident.

The MoT Maintenance Division has jurisdiction to audit all maintenance facilities of registered Canadian civil aircraft, e.g. Wardair's facility in London, England. Before an overseas visit is undertaken, the appropriate authorities in that country might be advised; this has occurred several times. At present, no overseas surveillance is being conducted, due to budgetary conflicts ("Who pays for the costs?").

Basically, the Airworthiness Section is responsible for the technical inspection of aircraft; the maintenance operations of companies that hold an Operating Certificate, including an Engineering Section which issues approvals for modications of aircraft; and Aircraft Maintenance Engineer licensing approval – i.e. conducting the examinations, maintaining resident inspectors in the manufacturers' large installations (e.g. McDonnell-Douglas and DeHavilland), and visits to smaller manufacturers.

Staff of the Airworthiness Section are not all AMEs themselves.

Some have manufacturing experience; about 3 staff members hold a background in avionics.

Relations with Wardair are excellent. At present the section is in the process of recommending a special Boeing course on the repair and overhaul category of heavy maintenance (which is separate from certification of aircraft for flight), to Wardair's Chief Inspector and Deputy. CP Air and Air Canada have their own training facilities where courses are given continuously; the section's inspectors audit many of them, sometimes attending in order to gain additional knowledge in a particular area. Wardair's small operation makes a school unfeasible – though the section would prefer it. Meanwhile, they monitor the company's training standards and regard continuity of training as a vital function.

Airworthiness Sections are regionalized – with offices in Vancouver, Edmonton, Winnipeg, Toronto, Quebec and Moncton, in addition to satellite district offices in Alberta and Saskatchewan; 3 new ones are planned for opening in Ontario in the near future.

APPENDICES

INTERVAC

Supervisors - Reservations
Branch Accounting
Administration
Reservation/Sales Agents
Administration Personnel
Branch Accounting Personnel
Judy Mackinnon

Doug Tompkins

Toronto

February 1st 1979

Refresher Training

The Training Department would appreciate your cooperation in determining areas of need for refresher training.

We would like you to provide the following information below and return to this Department as soon as possible. Thank you.

DEPARTMENT:

NAME:

POSITION:

List below any areas of your job in which you feel you need re-training. You are obviously the best judge of this. When we have received your replies we will review the results and select areas most frequently identified as being difficult or misunderstood. Based on your response, we will then begin re-training programs for your departments.

Intervac
A Wardair Company

PATHWAY I

OVERVIEW: This is a series of three half-day seminars designed to lead the participants toward effective leadership. A thoughtful approach to applying the techniques of guiding subordinates and a practical approach to applying newly-acquired responsibility.

OBJECTIVES:

1. Self-evaluation in a leadership role.
2. An accurate interpretation of the requirements and responsibilities of leadership.
3. A perceptive evaluation of the needs of the people they are leading.
4. The need for listening communicating and relating on a day to day basis.

POPULATION: For inexperienced new supervisors, senior customer representatives, lead agents and any personnel required to direct others on a periodic basis. These seminars are restricted to a minimum of six, maximum of eight participants. Preferably all from one department.

COURSE REQUIREMENTS AND CONTENTS:

Some required reading during this seminar. The half day sessions should be a day apart. Ideally Monday, Wednesday and Friday in a one-week period. Pertinent films and discussion groups will enable the trainees to evaluate their own ability in a leadership situation.

training and personnel development

Intervac
A Wardair Company

PATHWAY II

OVERVIEW: An intensive three day seminar in Human Relations for Supervisors. A baseline program directed at employees with some experience in a supervisory role. The course emphasizes the need for good employee relations and awareness of the importance and impact of the first-line supervisor. This course is demanding and requires undivided participation throughout.

OBJECTIVES:

1. To stimulate the supervisor toward people-oriented thinking.
2. To learn to observe and analyze the actual situation.
3. To take a serious, critical and objective look at each supervisor's performance.
4. To discuss and analyze various areas of supervisory responsibility.

POPULATION: For supervisors with at least six months on the job experience and with little or no background in the various areas of Human Relations. Maximum of twelve participants, not less than eight.

COURSE REQUIREMENTS AND CONTENT:

Some pre-course reading and preparation is required. Some homework required during the three days. An extremely high-level of individual participation is expected. Audio-visual presentations, case studies and self analysis of each participants leadership ability are included. Some topics covered are identifying employee needs, selecting and inducting employees, morale, on the job training techniques, job satisfaction and communication. Again, we stress that this seminar requires total commitment for three days, please do not enroll any trainees who are unable to attend all sessions.

training and personnel development

PATHWAY III

Presently in the planning stage, we will advise as soon as the course is available.

OVERVIEW: A one day seminar for Supervisors who have completed PATHWAYS I and II or equivalent. This course is on Appraising Employee Performance.

OBJECTIVES:

1. Appropriate preparation for the interview.
2. Professional approach to conducting the performance interview.
3. Constructive criticism.
4. Stimulating performance improvement.
5. Follow-up.

PATHWAY IV

Presently in the planning stage, we will advise as soon as the course is available.

OVERVIEW: A one day seminar for Supervisors who have completed PATHWAYS I and II or equivalent. Effective verbal and written communication.

OBJECTIVES:

1. To observe and analyze poor and effective communication techniques at the verbal level.
2. To learn and simplify methods of written communication -- memo and letter writing.

Intervac
A Wardair Company

PUBLIC CONTACT

OVERVIEW: The purpose of this one day seminar is to provide personnel who deal with the public on the telephone, or on a face to face basis, with fundamental techniques in customer relations. The course emphasizes our policy of First Class service and the Company's expectations in this highly critical area.

OBJECTIVES:

1. Identify and analyze the individuals performance in face to face situations.

2. Identify and analyze the employees performance on the telephone.

3. Consider appropriate methods for handling "awkward customers."

4. Clarify and emphasize the company's First Class service policy.

POPULATION: For Receptionists, Passenger Service Agents, Customer Representatives, Client Services Representatives and any other personnel dealing directly with the public. Each group restricted to a total of six individuals.

COURSE REQUIREMENTS AND CONTENT:

Some pre-course preparation will be necessary by the participants. The seminar will include consideration of a case study, slide-tape presentation and films. A high-level of participation is expected of the trainees.

training and personnel development

FEEDBACK: Goes back to Reservation Department

Intervac
A Wardair Company

TRAINING EVALUATION

Employee	
Position	Location
Course Title	Date
Character (Personality)	

	Unsatisfactory	Acceptable	Good	Outstanding
Appearance				
Attitude				
Attentiveness				
Discussion Participation				
Comprehension				
Willingness to Learn				
Quality of Assignments				
Job Knowledge				

Test Results ______________________________

Employee's Potential For Future Advancement ______________________________

Specific Points Discussed With Employee: ______________________________

Retraining Scheduled For: ______________ Course Title: ______________

Instructor: ______________

Distribution: 1. Systems & Training Department 2. Branch Personnel File

FEEDBACK by Doug Tompkins to Supervisor

Intervac
A Wardair Company

SYSTEMS AND TRAINING DEPARTMENT

PARTICIPANT EVALUATION

NAME:	
DEPARTMENT:	LOCATION:
COURSE:	COURSE DATE:

TRAINING CO-ORDINATOR:

COMMENTS:

10277

DISTRIBUTION: 1. Systems & Training Department
2. Branch Personnel File

PUBLIC CONTACT SEMINAR

NAME: ______________________

DEPARTMENT: ______________________

BASE: ______________________

DATE OF SEMINAR: ______________________

You will be participating in a one day seminar in Public Contact. Prior to this seminar, we require that you complete the following, and bring this form with you. During the seminar, you will be asked to present this situation to the group for discussion and analysis:

Describe a difficult situation you have encountered when dealing with the public at work.

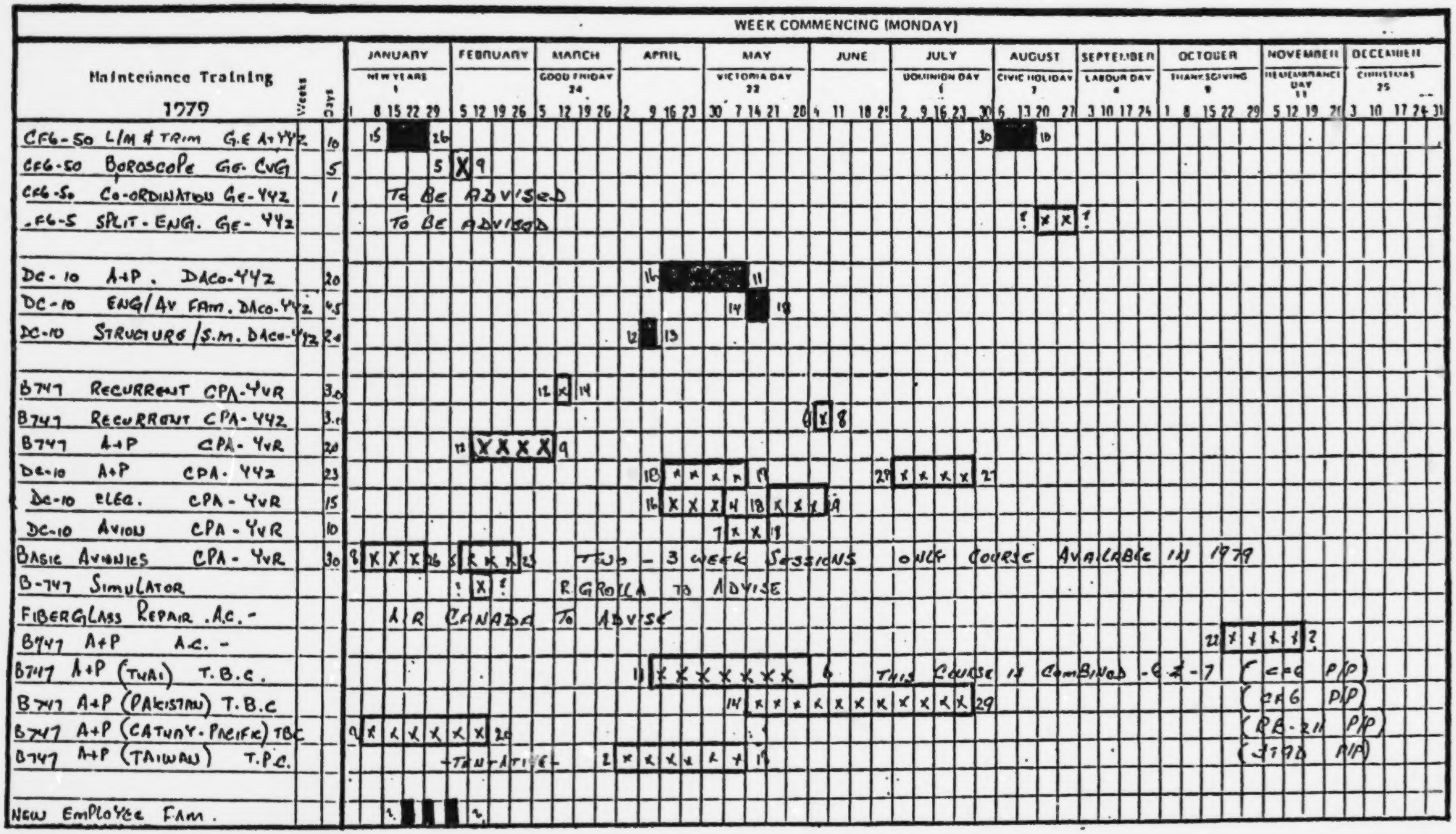
Describe how you dealt with this situation.

How do you feel that you could have improved your performance?

InterVac Training & Personnel Development.

APPENDIX B.

Wardair Canada MAINTENANCE TRAINING


WEEK COMMENCING (MONDAY)
JANUARY NEW YEARS 1 — 1 8 15 22 29
FEBRUARY — 5 12 19 26
MARCH GOOD FRIDAY 24 — 5 12 19 26
APRIL — 2 9 16 23
MAY VICTORIA DAY 22 — 30 7 14 21 28
JUNE — 4 11 18 25
JULY DOMINION DAY 1 — 2 9 16 23 30
AUGUST CIVIC HOLIDAY 7 — 6 13 20 27
SEPTEMBER LABOUR DAY 4 — 3 10 17 24
OCTOBER THANKSGIVING 9 — 1 8 15 22 29
NOVEMBER REMEMBRANCE DAY 11 — 5 12 19 26
DECEMBER CHRISTMAS 25 — 3 10 17 24 31

Maintenance Training 1979	Weeks	Days	WEEK COMMENCING (MONDAY)
CF6-50 L/M & TRIM G.E A-YYZ		10	15 ■ 26 · 30 ■ 10
CF6-50 BOROSCOPE GE-CVG		5	5 X 9
CF6-50 CO-ORDINATION GE-YYZ		1	TO BE ADVISED
CF6-5 SPLIT-ENG. GE-YYZ			TO BE ADVISED · ? X X ?
DC-10 A+P. DACO-YYZ		20	16 ■ 11
DC-10 ENG/AV FAM. DACO-YYZ		4.5	14 ■ 18
DC-10 STRUCTURE/S.M. DACO-YYZ		2.4	12 ■ 13
B747 RECURRENT CPA-YVR		3.0	12 X 14
B747 RECURRENT CPA-YYZ		3.0	4 X 8
B747 A+P CPA-YVR		20	12 X X X X 9
DC-10 A+P CPA-YYZ		23	18 X X X X 19 · 29 X X X X 27
DC-10 ELEC. CPA-YVR		15	16 X X X 4 18 X X X 8
DC-10 AVION CPA-YVR		10	7 X X 18
BASIC AVIONICS CPA-YVR		30	8 X X X 26 5 X X X 23 TWO - 3 WEEK SESSIONS ONLY COURSE AVAILABLE IN 1979
B-747 SIMULATOR			? X ? R GROLLA TO ADVISE
FIBERGLASS REPAIR A.C. -			AIR CANADA TO ADVISE
B747 A+P A.C. -			22 X X X X ?
B747 A+P (THAI) T.B.C.			11 X X X X X X X 6 THIS COURSE IS COMBINED -E ≠ -7 (CF6 P/P)
B747 A+P (PAKISTAN) T.B.C			14 X X X X X X X X X X X 29 (CF6 P/P)
B747 A+P (CATHAY-PACIFIC) TBC			9 X X X X X X 20 (RB-211 P/P)
B747 A+P (TAIWAN) T.P.C.			-TENTATIVE- 2 X X X X X X 19 (JT9D P/P)
NEW EMPLOYEE FAM.			1 ■ ■ ■ 2

APPENDIX C.

article taken from PILOT
the journal of the Canadian
Air Line Pilots Association
Volume 30, Number 3
Autumn 1973

THE ROLE OF THE AIR CARRIER INSPECTOR

by Walter McLeish
Director General, Civil Aviation, MOT

EDITOR'S COMMENTS: Unfortunately, due to weather conditions, Mr. McLeish was unable to deliver his address to CALPA's Technical and Safety Symposium in Toronto, October 25, 1973. We are pleased to print Mr. McLeish's prepared speech and are confident that it clarifies the position of the Air Carrier Inspector.

As Mr. McLeish points out, the success of the Air Carrier Inspection Program will still depend to a large degree on the comments, suggestions and day-to-day liaison of the airline pilots.

Description of Operating Certificate and Reason for Inspections

Before discussing the role of the Air Carrier Inspector, I will talk about the **Operating Certificate** held by air carriers.

The Operating Certificate is a Certificate of Safety. As you may be aware, the Aeronautics Act requires that every operator of a commercial air service must hold a licence issued by the Air Transport Committee of the Canadian Transport Commission. In addition, Section 700 of the Air Regulations requires every air carrier to hold a valid and subsisting Operating Certificate. The Operating Certificate states that the air carrier is adequately equipped and able to conduct a safe operation. Associated requirements are set forth as minimum standards in Air Navigation Order, Series VII, No. 2 and/or No. 3, as applicable.

The Operating Certificate also contains authorizations, conditions and limitations, that is to say, **Operations Specifications** with which the air carrier must abide. Obviously, a prerequisite to the issue of any Operating Certificate involves detailed inspection of the applicant's facilities, organization structure, managerial and technical personnel, operation control capability, and so on, to determine whether or not he (the applicant) is adequately equipped and able to conduct the operations for which he is to be certificated, in a safe and proper manner.

By the same token, it should be obvious that, in the public interest, and in order to verify the Minister's certification, inspections of every Operating Certificate holder must be conducted on a continuing and orderly basis, to ensure that the holder continues to be "adequately equipped and able to conduct a safe operation" and is in fact operating in accordance with the appropriate statutory requirements, including his Operations Specifications.

In broad terms, our inspection services are concerned with two areas which we call Flight Operations and Maintenance. The Air Carrier Inspector is concerned with Flight Operations, which includes passenger cabin safety, passenger services, flight dispatch, flight crew training and scheduling, manuals, etc.

Air Carrier Inspection — Brief History

While air carrier inspections were carried out in the late 1940's and the mid 50's, none of our Civil

Aviation Inspectors were specifically assigned to this task. The Inspectors were not given specialist training for this purpose and actually the role they played was more in an observer capacity. As a result of a very significant increase in air carrier activity in the 1950's, it became evident that the inspection of commercial air services would have to be expanded and carried out on an organized basis. For this purpose, in 1955 the Department recruited six Civil Aviation Inspectors, all of whom had a broad background in the operation of large aircraft. The majority of these Inspectors also had substantial experience in commercial air service operations. Each of these Inspectors was given ground school training on the types of aircraft on which their inspection activities would require them to fly regularly. It was recognized at that time that it would be desirable for these Inspectors to have flight training and qualification on these types of aircraft, but budget constraints were such that we were not successful in obtaining approval for such additional training. These Inspectors were assigned to each of our Regional Headquarters and were given responsibility for inspection on an air carrier basis; i.e., they were responsible for a specified carrier's operations on a fleet basis. These Inspectors were also responsible for all Instrument Flight Rating check flights in Canada, except for those delegated to carriers with approved instrument check pilots.

In 1965, it became apparent that because of the volume of instrument flight checking in Canada, that air carrier inspection activity was falling into a secondary role and it was for this reason that the two functions were separated. In the ensuing organizational changes, additional instrument check pilots were provided in Regions and the air carrier inspection activities were centralized at Headquarters in September of 1965. After the Air Canada DC-8 accident in Toronto, in July of 1970, and as a direct result of specific recommendations made in Judge Gibson's report, authority was received to expand the air carrier inspection activities and to this end, an additional eleven Inspectors were recruited from the Canadian Armed Forces and Industry. This approval included the additional funds necessary to train all of our Air Carrier Inspectors to captain standard on modern turboprop and turbojet aircraft used by Canadian air carriers. In addition, provision was made for recurrent training on a regular basis to ensure that the skills so acquired could be maintained.

Coincident with this expansion of inspection services, it was decided to decentralize our air carrier inspection staff to Regions. This was done because our experience over the period of 1965 to 1972, indicated that, with a centralized operation, a great deal of the rapport, which had previously existed between our staff and the line pilots with the companies they were associated with, had shown serious deterioration. During the past year, following a period of intensive training which included indoctrination in our administrative procedures, a total of thirteen Inspectors were assigned to our Regional offices. Their assignments have been made on the basis of equipment types and their responsibilities in this regard will frequently overlap Regional boundaries. In addition to the deployment of our operational staff to the Regional offices, there is a substantial back-up of Inspectors with similar qualifications located at our Headquarters. One of their primary responsibilities is the maintenance of a common standard for all air carrier inspection activities.

In-Flight Route Inspections

In regard to in-flight inspections, I would like to emphasize that the Inspector is monitoring the carrier's system and is not primarily concerned with individuals who play a role in that system. In other words, the Inspector is observing flight crew operating procedures, dispatch, ramp safety, passenger cabin safety procedures, equipment, etc. I might add that since the Inspector's basic function relates to safety, he also monitors services which are provided to the system by other agencies including the Department of the Environment and the Ministry of Transport.

Since the in-flight inspection report includes comments about airports, air traffic control and possibly other companies, its distribution is normally confined to the appropriate agencies within the MOT. However, if the report refers to a crew member by name, the Inspector will discreetly discuss the matter, at the time, with that person and reveal the appropriate contents of the report and, if necessary, subsequently inform the Operations Manager of the carrier concerned. At the moment we are examining the possibility and/or practicability of making a copy of these reports available to the carrier and flight crew involved. It is interesting to note from examination of the form, that on a routine flight, assuming that both the operator and our Inspector have done an efficient job, the inspection report will be blank except for identification of the carrier, the flight number and the flight crew. If any deficiencies are observed, invariably it would necessitate a supplementary narrative report, which is despatched to responsible officials of the carrier as soon as possible. In such cases, our Inspectors have been instructed to discuss the substance of the report with the captain at the conclusion of the flight.

I have heard reports that Inspectors have boarded flights unannounced. I can assure you that this is not our intent and every attempt is made to avoid the "element of surprise". Inspectors, when possible, advise crew scheduling and/or flight despatch of their intentions, a day or so in advance. Agents are requested to advise the captain of the Inspector's itinerary. I have recently contacted the carriers concerned, in an attempt to find a more effective means of ensuring that the captain is informed.

Our Inspectors are on the flight to help you, and the carrier, conduct a safe operation. Your comments and suggestions concerning radio beacons, airways, airports, air traffic control, etc., are referred to the appropriate authorities with recommendations for action. You will find that the amount of time our Inspectors travel on your flights **is less than .05% of the total hours flown by the air carrier and we need your assistance if we are to be effective.**

Another important function for the Air Carrier Inspector is to assess the effectiveness and standard of the Air Carrier's Training System. To accomplish this he must sample parts of the system. It therefore follows, that the flight crew, as a vital part of the system, will occasionally be subjected to some scrutiny.

To assess the effectiveness and standard of the ground school training, the Air Carrier Inspector will observe parts of the ground school training program. We receive a bonus from this activity, as the Inspector also receives refresher training on the aeroplane systems and procedures.

To assess the effectiveness and standard of the initial training program, he will observe parts of the program, and then conduct the initial type proficiency checks or the upgrading checks.

To assess the effectiveness and standard of the recurrent training program, he will monitor an established percentage (30% Captains, 15% First Officers) of the proficiency checks conducted by designated company check pilots.

To ensure a common standard of checking by all air carriers in Canada, he will conduct the proficiency checks on the designated company check pilots.

At the present time most air carriers are conducting intensive training programs, brought on by an expansion of their fleets or the acquisition of new aeroplane types. During the 13-month period from September 1, 1972 to October 1, 1973, our Air Carrier Inspectors have conducted 943 proficiency checks on large aeroplanes. I must point out that in using this figure, a proficiency check that consisted of a simulator check ride, plus an aeroplane check ride, is listed as two checks. However, it does help to illustrate that the task of assessing the standard of Air Carrier Training Systems is an important function in our inspection system.

Our Inspectors become very familiar with Aeroplane Operating Manuals and FAA Approved Flight Manuals. Initially all Aeroplane Flight Manuals must be approved. Then, they must be constantly reviewed in the light of FAA Bulletins, Manufacturers Bulletins, changes in Minimum Equipment Lists, manufacturer's amendments and requests from the air carrier for amendment. The Inspectors have contacts with their counterparts in the FAA and with the manufacturer, if there is a need for consultation. They also attend the Flight Operations Evaluation Board meetings, set up by the FAA, for the purpose of establishing and, when required, amending the minimum equipment lists.

Inspector Qualifications

Our Air Carrier Inspectors have considerable aviation background in Civil Aviation or the military equivalent or both.

They are qualified on one, or at the most, two large aircraft types that are operated by Canadian air carriers. They realize that with the limited amount of flying available to them, they cannot remain as competent at "stickhandling" as they would prefer. However, I feel that the exposure they receive, while observing the "professionals" fly, while monitoring the training programs and in reviewing the appropriate manuals, will result in an inspection staff that is very knowledgeable on aircraft systems, flight procedures and patterns.

Those of you who have done considerable supervisory work as check pilots probably realize that there is always a possibility that a person may become hypercritical if he remains in a check role too long. My Inspectors assure me that this will not happen to them. They indicate that after a six-hour training program in the simulator, devoted to abnormal and emergency procedures, they emerge as very humble people indeed, and with their perspective back in place.

In addition to this training, I have introduced a series of Inspector workshops to expose all Inspectors to a new concept in inspection procedures. At these workshops, we teach the Inspector to use the systems analysis approach in regard to the air carrier's organization, dispatch system, record keeping system and training system. The subject material used at these workshops relates to Civil Aviation matters only and are applicable to the Inspector's activities. I am sure, these workshops will improve the quality and effectiveness of our inspection service.

Many of the Air Regulations, Air Navigation Orders and Government publications and the Inspector's assessments, by their very nature, are subject to controversial opinions from adversely affected individuals, from both the aviation industry and the public.

Our Inspectors are in direct contact with these people in the industry and the public and must, at all times, exercise diplomacy, fairness and good judgement. I think you will agree with me that this is a lot of responsibility for one individual and I can assure you they do not treat this responsibility lightly.

The Air Carrier Inspector will help you, in every way possible, to improve flight safety and I am sure that you will give them your full cooperation in the exercise of their duties.

Note: Samples of Operating Certificates and Air Carrier Flight Inspection forms are available through MOT Headquarters, Ottawa.